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Irony: A Pragmatic Study

- Boerendra Pandey

Irony is traditionally defined as the opposite of its literal meaning. It enjoys a privileged status both in linguistics and literature. Whereas it is a key element in literature and the generator of literary value, its encoding and decoding are matters of intense discussion in linguistics. The communication of irony is different from the transmission of literal language, for its encoding and decoding lead up to the question: how meaning is determined by context. An attempt will be made in this paper to see why irony is made; how it is communicated through language; how the communication leads to a pragmatic approach. It is assumed that the ironic discourse has a plot or structure whose dominant (Jakobson’s term) is negation. Irony arises not merely from the opposition in lexis or syntax but also from a discrepancy between pragmatic and textual conditions. The pragmatic features of irony are intertextuality, counterfactuality and intentionality. An appraisal of these features simultaneously reveals its plot-like structure.

Traditional semantic approach to irony, as Sperber and Wilson point out, is flawed for precisely three reasons: being unable to define figurative meaning, to devise the procedure of arriving at the figurative meaning of an utterance, and to justify an addressee’s preference for an ironical utterance (550). Hence the need arises for a pragmatic approach to irony. Pragmatics, says Levinson, is concerned precisely with such conventions.

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whereby a speaker can mean more than, or something quite different from what he actually says, by exploiting communicative conventions .... the goal of a pragmatic theory is to predict the meaning, in the broad Gricean sense, of an utterance in a specified context (26-27)'. Communication involves the notion of intention and agency, and those inferences that are openly to be conveyed can properly be said to have been communicated. Grice (1957) characterizes intentional communication (which he calls meaning-nn) thus:

S meant-nn by uttering U if and only if;
   i) S intended U to cause some effect Z in recipient H
   ii) S intended (i) to be achieved simply by H recognizing that intention (i).

Here, S stands for speaker; H for hearer and 'uttering U' for utterance of a linguistic token; and Z for some belief invoked in H. Such a characterization of intentional communication states that communication consists of the addressee to think or do something just by getting the addressee to recognize that the addressee is trying to cause that thought or action. In the process of communication, the addressee's communicative intention becomes mutual knowledge to the addressee (S) and the addressee (H), i.e. S knows that H knows that S knows that S has this particular intention.

In 'Logic and Conversation' (1975), wherein Grice treats figurative language as a departure from the norm of abiding by a 'maxim' of truthfulness, he once again emphasizes on the sharing of mutual knowledge between the addressee and the addressee. When an addressee tries to say something which is at odds with the maxim of truthfulness, the addressees will assume that the maxim is being observed on another level, and will try to recover as an implicature some related preposition. Grice's theory thus explains how there can be interesting discrepancies between speaker-meaning and sentence-meaning. For Grice ironical utterances 'would conversationally implicate rather than figuratively mean the opposite of what they literally say' (Sperber & Wilson 550). For example, 'Maths is very interesting' said ironically is intended by the addressee to communicate 'Maths is very boring'. Irony intended as a device of conveying a truth by asserting its opposite achieves, as comments Stuart Sperry, 'effects that can be more dramatic or striking than simply speaking one's mind' (4). Irony intended as a literary device generally operating through the verbal and the structural varieties implies intention and asks for a good deal of effort from the reader.

Pragmatics is concerned with the study of those aspects of language that are not covered in semantics. This means that given a linguistic form uttered in a context, a pragmatic theory must account for implicatures and speech act. John Searle (1969) says that in speaking and writing we perform simultaneously three, sometimes, four, distinguishable kinds of speech acts; (i) we utter a sentence (ii) we refer to an object (iii) we perform an illocutionary act (iv) we also perform a perlocutionary act. Illocutionary act refers to the communicative intention of the speaker. A sentence composed of the same words, such as 'Can you pass the salt?' has the form of a question but the illocutionary or communicative intention of an imperative request. The perlocutionary or intended effect of the utterance is to have the salt passed. So for effective communication the adherence to pragmatic rules is essential. That is, it follows the rules of the status of the addressee and the addressee and satisfies Searle's (1969 : 57-61) three kinds of conditions: preparatory, sincerity and essential. Preparatory conditions will include the right or authority to do a certain speech act; the appropriateness of situation for the performance of the act. If preparatory conditions are not met, the act will misfire. Sincerity conditions include the beliefs and feelings that go with the illocutionary act. Essential conditions, on the other hand, mean that an addressee should make an utterance in consistency with his beliefs and intention to which he is committed. Irony violates Searle's sincerity condition, for example, a lecturer's following letter to the ex-campus chief:

'I have done what you have asked me for. By the way, thank you very much for spoiling my confidential report'.
convert, stable and localized (Booth 7) but also that its interpretation involves four acts performed by the addressee: a rejection of literal statement; a search for alternative position; a decision about the position of the implied addressee; a reconstruction of meaning in line with this decision (Booth 10-11). The four steps can be discovered in analysis in the following remarks of a boy who is fed up with the amorous advances of an ugly girl:

"You are the Helen of Troy, aren't you?"

1. The surface meaning is rejected because the reality is that the girl is ugly.

2. Alternatives: the boy is in love with the girl and it is the reality. No, it can't be, for he does not love her at all. Then perhaps he is crazy or stupid. No, he can't be. He's simply kidding.

3. I decide that the boy does not praise the girl for her beauty.

4. I construct a meaning in harmony with that decision: the boy means to tell the girl that as Helen is thought to be the most beautiful woman of the world, he thinks her to be the ugliest girl in the world.

The comprehension of irony thus entails the resolution of the discrepancy within ironic utterance or between the utterance and its context. Booth's four-fold steps to the comprehension of irony and its pragmatics as discussed above reinforce its intertextual, counterfactual and intentional nature and at the same time point to its plot-like structure. An ironic utterance is intertextual because its interpretation involves a great deal more than knowing the meaning of words uttered and the grammatical meaning between them. The understanding of an ironic utterance calls for presupposition and involves the making of inferences that will connect what is said to which is mutually shared or what has been said before (Pl. 1380-96). The parties involved in the ironic discourse must accept a common frame of values: "The ironic figure of speech cancels itself....., for the speaker presupposes his listeners understand him" (Kierkgaard 216). An
Ironic utterance is apparently counterfactual in the sense that it negates the conventions created by the addressee. Even when we approach irony, like Kierkegaard in *The Concept of Irony*, as a state of mind, truth, in the act of revealing itself, suffers, a necessary negation' (Tittler 16) Negation remains central to irony. Negation, as says Maire Jaanus Kurrik, 'demands some kind of mediation and this mediation in turn introduces some kind of levelling or ordering' (Preface vi). Then the question arises how the addressee brings about a 'levelling or ordering'. He does so with the help of the hints in the text against the surface validity of the counterfactual utterance which is intended to be reconstrated with meanings different from those on the surface. The addressee's first creating the convention, then negating it and the addressee's action of detecting the negation in order to reconstruct the intended meaning point to the three chains of events in the structure of irony. The plot of irony with all its three chains of events can be depicted with the help of a tree diagram:

Chains of events in the construction and reconstruction of irony

- Creation of conventions
  - Negation and detection of negation
    - anaphoric
    - exophoric
      - predicative
      - pragmatic
        - lexical
        - propositional

Philosophical belief, human behaviour, literary behaviour.

The ironist, first of all, creates some norms or conventions and makes them tangible to his readers by making anaphoric reference and exophoric or both at the same time: in-text reference to episodes, characters and themes or outside references pertaining to philosophical belief, human behaviour and literary behaviour. This primary phase in the plot of irony has two major implications, first that each type of irony can have a different type of created convention and perhaps different persons as ironists and second that the reader must have a native-like command and knowledge of the concerned language and culture respectively: 'Cultures and subcultures vary enormously in the extent and degree of the linguistic and extra-linguistic cues provided for ironical utterances' (Searle, 1979:536). The ironist of a verbal irony is generally a character in fiction who creates generally anaphoric norm. Verbal irony can arise only in a social context for it is a product of intersubjective communication' (Tittler, 18). Likewise, in structural irony the ironist generally create the exophoric norm, for example, Swift's *A Modest Proposal*. Swift's proposal of slaughtering and eating children is written into the extra-textual context of the social code. In a cannibalistic society *A Modest Proposal* would refuse to be ironic.

The second stage in the plot of irony is the negating of the created convention by the ironist and then leaving the readers some hints to his negative intentions. And the third stage is the spotting out of some negatives implied or found in the text. The ironist, according to Alice Myers Roy, create negativity at two levels: predicative and pragmatic (411-414). In the predicative negation, the intended meaning can be spotted out in the lexis or proposition:

(a) He has played well, hasn't he?

said about the batsman out first ball for a duck is a case in which badly can be directly substituted for well. Such a single lexical antinomy makes up a goodly proportion of irony. At the propositional level, however, as in

(b) I always wanted to spend the winter in Iceland.

There is no single lexical antinomy: rather when the addressee says he intends the addressee to understand that it is not the case, as in (c):

(c) It is not the case that I always wanted to spend the winter in Iceland.

Such ironies are generally interpreted on syntactic or semantic ground. However, there are a lot of ironical utterances in which the negation is not predicative but pragmatic. Whether
predicative or pragmatic, negation is what may be termed, in Jakobsonian language, as the dominant of irony: the component which rules, determines and transforms the remaining components of the structure of irony. It is the creation of the different degrees of negation that creates different degrees of irony which literary critics admire in literary texts.

Thus irony which is a seemingly observe means of communication permits addressers to say the predicative or pragmatic opposite of what they mean and get away with it. The pragmatics of irony give an insight into the plot of irony, the pivotal point of which is negation. As irony depends on apprehending the norms and conventions negated, the generating principle is undoubtedly negation.

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The Grammar of Onomatopoeia in Nepali

Madhav P. Pokharel*

1. Introduction

Although every language has some onomatopoeic words, they are characteristic of South and Southeast Asia which have unusually high degree (Masica 1991:78-80) of their occurrence irrespective of a language family: Indo-Aryan (Chatterji 1926:371), Dravidian (Emeneau 1969), Austro-asiatic and Tibeto-Burman (Masica 1991). Emeneau (1969) and Masica (1976, 1991) have hinted the cross-linguistic concordance in the pattern of onomatopoeic words.

There is a gradual increase in the frequency of such words in the history of Indo-Aryan. Such words have nothing to do with other Indo-European languages outside South Asia. Outside this linguistic area Emeneau (1980:9) has noted similar traits in the Altaic languages. In Indo-Aryan their abundance is the result of the predominant areal pressure. Thus it is natural to have found a fair share of such words in Nepali which is an Indo-Aryan language spoken along the Himalayan border of South Asia and is in direct contact with Tibeto-Burman languages.

This paper is based on an inquiry into Pandit (1912), Emeneau (1969), Dahal (1971) and Masica (1991) and hopes to advance further with data from Nepali. Emeneau (1969) and Masica (1991) are South Asian typological generalizations while Pandit (1912) and Dahal (1971) are observations on Nepali data.

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According to Hartmann and Stork (1972) onomatopoeia deals with the formation of words imitating natural sounds...... Only very limited number of words in a language are based on this type of imitation, while the conventional nature of words as arbitrary symbols is a much more important feature of human language. It implies that the study of onomatopoeia or onomatopoeic words forms a very narrow subset of the data. Masica (1991:78-80) is right to say that 'onomatopoeia' is a misnomer, because the so-called 'onomatopoeic words' are not only imitations of natural sounds. There is ground of 'phonaesethia' (Crystal 1988) or 'synaesethia' (Hartmann and Stork, 1972)/that is, the associating of a particular phoneme cluster with a particular meaning (cf. Dahal 1971).

2. Internal Grammar of Onomatopoeic Stems

2.1. Phonology

2.1.1. Inventory of Phonemes

All the consonant and vowel phonemes except /e/-e/* form the phonemic inventory of onomatopoeia in Nepali. The following is the Nepali phonemic inventory according to Pokharel (1989):

<table>
<thead>
<tr>
<th>Oral Vowels</th>
<th>Nasalized Vowels</th>
<th>Consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>iːn</td>
<td>k, kʰ, g, gʰ, η, h</td>
</tr>
<tr>
<td>e</td>
<td>eːn</td>
<td>c, cʰ, j, jʰ, y, s</td>
</tr>
<tr>
<td>a</td>
<td>aːn</td>
<td>T, Th, D, Dʰ, h, r</td>
</tr>
<tr>
<td>A</td>
<td>Aːn</td>
<td>th, d, dʰ, n, l</td>
</tr>
</tbody>
</table>

Table 1: Nepali phonemic inventory

Consonants are found in five different forms in onomatopoeic words: (a) Consonants in the initial position, (B) Consonants in the intervocalic position, (C) Geminate consonants (D) Consonant clusters and (E) Consonants in the root final position.

In onomatopoeic words, consonants which are found in five different types of arrangement make different inventories.
A. Single Consonant in the Initial Position.

All the consonants except /n/ can occur singly in the initial position of an onomatopoeic word.

4. kucukka k'arakka galakka gharakka ny Acca
casakka chusukka jarakka jhasakka
Tasakka Thasakka Dyamma Dhakamakka
tarra tharra darrat dharra *
parra pharra barra bharra musukka
y'Ai rananna lapakka wAlla
sarakka halakka

B. Single Consonants in the Intervocalic Position

i) Velar consonants usually do not occur singly in the intervocalic position of onomatopoeia. Only two words akhaTTa and aragojja are found in the data.

ii) Aspirates (including voiced aspirates) do not usually occur intervocally. Only two occurrences akhaTTa and kaph alla are found in the data. Voiced aspirates are not in exception.

5. Tapakka Tamakka.

iv) In onomatopoeic words glides /y, w, h/ do not occur intervocally.

v) Only two nasals /m, n/ out of three occur intervocally due to the tendency of velar consonants not to occur in the intervocalic position.

6. Tamakka Tanakka

vi) Alveolar consonants /c, T, t, j, D, d, r, l, s/ can occur intervocally, where voiced stops are less frequent. Hence the following is the inventory of consonants occurring in the intervocalic position.

7. Obstruents c, T, t, p, j, D, d, s, (kh), (ph), (g).
   Sonorants m, n, r, l.

C. Geminating Consonants

Pandit (1912:444-5), Emeneau (1969) and Masica (1991) note that onomatopoeic words are of two types (i) Reduplicative and (ii) Nonredunductive. The nonredunductive type consists of a geminate at the final syllable.

i) Glides (y, w, h) are not geminated.

ii) Voiced aspirates (g^h, j^h, D^h, d^h, b^h) are not usually geminated.

iii) Voiceless aspirates (k^h, c^h, T^h, t^h, p^h) are not usually geminated. In the data only three words makk^h, gult^h, and araTT^h are found in exception to the generalization. When an aspirate is geminated the preceding component is despirited.

iv) 'Grave' (Jakobson 1951) or 'noncornoanal' (Chomsky and Halle 1968) voiced stops (g, b) are not geminated. Only 'acute' (Jakobson et al 1951) or 'coronal' (Chomsky and Halle 1968) voiced stops are geminated and their occurrence (gujuija, guudda, guDuDDa) is also less frequent.

v) All voiceless unaspirated obstruents (k, c, T, t, p, s), nasals (m, n, η) and liquids (r, l) are geminated.

Hence the summary of the geminating consonants:

8. \( k \quad c \quad T \quad t \quad p \\
   \quad \ (k^h) \quad \ast \quad \ (T^h) \quad \ (t^h) \quad \ast \\
   \ast \quad j \quad D \quad d \quad \ast \\
   \eta \quad n \quad m \\
   \quad s \quad r \quad l \)

vi) Gemination of K is highest (40%) in frequency followed by η (11%), r (9%), m (5%), T, t, S, l (4%), p, n (3%), c (1.5%), η (0.6%). D and d (0.4%). Chatterji (1926: 371) and Emeneau (1969) note that the gemination of k dates back to Middle Indo-Aryan.

D. Consonant Clusters

Consonant clusters are usually found in the penultimate syllable of an onomatopoeic word; although initial clusters (e.g.
blyAŋña, ptyAtta, pwATTA) are also not unlikely. If we ignore the clusters whose following component is a high glide (y, w), the following sequences are permitted in onomatopoeia:

9. kc, kr, kl, ks, kʰr, ... cr, cl, ... tr, tl, ... tʰl, tʰr, ... pr, pl, ps, pʰr, pʰl, ... rl, ... ls, lm, ... sl, sr, ƞc, ƞr, ƞl, ƞs, ƞp, ... mr, ml, ms, ... nr, bl.

10. Examples

These data show that:

i) The most probable second component of a cluster is either a liquid (r, l) or a strident (s, c).

ii) The so-called retroflex consonant is never a preceding component of a cluster.

iii) Aspirates are not much frequent in the cluster as a preceding member, although kʰr, pʰr, thr, tʰl cluster occur in the data.

iv) Among nasals /n/ makes a cluster only with /r/ and /ŋ/ does not precede /k/.

v) /s/ does not occur after coronals (c, T, t).

Summary of medial cluster:

<table>
<thead>
<tr>
<th>k</th>
<th>kh</th>
<th>ƞ</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td></td>
<td>l</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td></td>
<td>r</td>
<td>s</td>
</tr>
<tr>
<td>t</td>
<td></td>
<td>d</td>
<td>n</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>ph</td>
<td>b</td>
</tr>
</tbody>
</table>

E. Consonant in the Root Final Position

i) All nasals (ƞ, n, m), liquids (r, l) unaspirated (except ph) stops and the sibilant can occur in the root final position.

11. ṭhaŋṭhaŋ, phanphan, chamcham, bhahrhar, chalchal, lyAplylyAph, ThukThuk, kicic, kAlAtA, phatlhat, h³yAph³yAp, laglag, giğiği, gAdGAd, gudgud, DabhDabh, chyAṣchluss.

ii) Sonorants, voiceless obstruents and voiced stops are in the ratio of 8:4:1.

iii) Obstruents are in the following hierarchy k > P > S > T > t, c

2.1.2. Inventory of Vocalic Peaks

The inventory of basic vocoids that make syllable peaks in onomatopoeics are as follows (cf. Dahal 1971):

<table>
<thead>
<tr>
<th>Basic Oral Vocoids</th>
<th>Derived Oral Vocoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. i  u  i  u</td>
<td>yA  W A  yA  o</td>
</tr>
<tr>
<td>13. iⁿ  uⁿ  iⁿ  uⁿ</td>
<td>yAⁿ  wAⁿ  eⁿ  wAⁿ</td>
</tr>
</tbody>
</table>

Basic Nasalized Vocoids

<table>
<thead>
<tr>
<th>Derived Nasal Vocoids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aⁿ  Aⁿ</td>
</tr>
</tbody>
</table>

14. Examples (oral)
kicca, kucca, kyAcca, kuAcca, kacca, kuAcyAkka, kócycAkka, Th³T, cuʰcuⁿ, cu³cyAⁿ, cuAⁿ, cuAⁿ, cAⁿ, cAⁿ, Th³Teⁿ.

The inventory of vowels shows that in an onomatopoeic word /e³oⁿ, aⁿ/ never occur. Besides, there can also be diphthongs Aiⁿ, Auⁿ, uiⁿ, ivⁿ in the nasalized form.

2.1.3. Syllable Structure

In onomatopoeia there are found both open (kyAⁿₚ, kyAⁿ, piⁿpiⁿ, kuAⁿ, kwAⁿ, cAⁿcAⁿ, cuⁿ, cuⁿ, thilipiṭili, kicicipi) and closed (kyAc, kyAc, kac/mac) syllables. In a nongeminated
and reduplicated type base if the syllable is open, the vowel is always nasalized:

15. kyA^n.kyA^n, pi^npi^n, kwA^n.kwA^n, cA^n.cA^n, cu^n.cu^n.

However, in a geminated or nonreduplicated type the vowel in the open syllable is not nasalized:

16. thilipiti, kicpici, kupu.kupu, akamakka, aragaija, kyAcyAkka.

The vowel /a/ in onomatopoeia is never nasalized:

17. harara, barara, khalala, baba, khalalla.

If we ignore high glides /y,w/ in a cluster (cf. Pokharel 1989) we will find a cluster of maximum two consonants in the onset of the first syllable of an onomatopoeic word. In such a case the second component of a cluster is always a lateral liquid /l/.

18. blyAñña, cablyAñña, khatrañña

2.1.4. Number of Syllables

In the data of onomatopoeia four syllabled ($^4$), two syllabled ($^2$) and three syllabled ($^3$) words are in the ratio 1:8:16.

2.2. Morphology

2.2.1. Base

There are two types of base in onomatopoeia: (A) Monosyllabic and (B) Disyllabic. Dahl (1971) calls the base a 'phonaesthetic element'.

19. Monosyllabic: chyAp, kac, phan, si^n, etc.

20. Disyllabic: chyAplyAñña, k^nandañña, caTyAñña, hukka^n, etc.

2.2.2. Processes of Word Derivation

Onomatopoeic words are basically adverbial in grammatical function although there are derived nominal, adjectival and verbal onomatopoeic words too, to which we will come later. At the moment we will focus our attention only at the adverbial.

There are some processes of deriving onomatopoeic stems and words out of the monosyllabic and disyllabic bases or roots.

2.2.2.1 Gemination:

This process is noted by Pandit (1912), Sapkota (1968), Emeneau (1969), Dahal (1971) and Masica (1991). In Nepali open syllabled roots which are usually with nasalised peaks (like kwA^n, sui^n, pi^n, cyA^n) are not geminated, but closed syllabled roots are often geminated. Closed monosyllabic roots (hwa^n, kyAc, etc.) do not usually occur independently. In the data such roots are found either in the form of geminated ultimate consonant or in the reduplicated form etc.

21. *kwAs = kwAssa
22. *kyAc = kyAcca
23. *pyAk = pyAkka
24. *p^nAl = p^nAlla
25. *pwAT = pwATTa
26. *p^nAt = p^nAtta
27. *ku^r = ku^ra
28. *sal = salsa
29. *wuAm = *wu^Ma
30. *Tyañña = TyAñña
31. *Ttan = Tanna
32. *kwAp = kwAppa

Gemination is a common phenomenon even with disyllabic roots:

33. caTyAñña = caTyAñña
34. paDya^n = paDya^ka
35. pha^nña = pha^nña
36. cayA^n = cayA^n

Sapkota (1968: introduction) thinks geminates indicate complete stop but it is to be reconsidered with the gemination of liquids and the sibilant.

2.2.2.2 Reduplication

Reduplication is very productive in the manufacture of onomatopoeia and is noted by Pandit (1912), Sapkota (1968), Dahal (171) and Masica (1991). It is already mentioned that closed monosyllabic roots are brought to the surface form only through gemination and reduplication. Reduplication is often a cyclic or a chain rule in the derivation of onomatopoeic occurrences. The material with identical reduplication forms the largest mass of data (Emeneau 1969).

37. ghyAkghtyAk, kyAcyAc, ThañThañ, phanphan, etc.
38. macakmacak, phatarphatar, palyAt-palyAt, etc.
39. kalyAnmalyAñ kalyAnmalyAñ, jhalmal jhalmal, etc.

Reduplication denotes iteration of an action in onomatopoeia. At the present stage we are not in a position to conclude that all roots in onomatopoeia are reduplicative and even gemination is a derivation of reduplicated base. But the following data hint towards making this kind of hypothesis:

40. *piT. piT ...piT = *piTTiTTi...Ti = piTTiTTa.

2.2.2.3 Consonantal Dissimilation

For certain semantic reason there is found consonantal dissimilation in onomatopoeia and is noted by Emeneau (1969) in Dravidian language.

42. dharmar, jagmag, Dh'asmas, jhalmal, kasmac, khalmal, callmal, Tasmas, halpat, laspas, Taalpal, Dhalpal, callbal, callbar, gasDhaD, c̪'yAlbyAI, tubulal, Hickic, hink̪'im, dhark̪'ar, ram̪'am, caTakpaTak.

The canonical shapes of such onomatopoetic words are as follows:

(A) C1V1C2 · CxV1C2  (B) C1V1C2V1C CxV1C2V1C3

The dot separates the two roots and Cx denotes the dissimilating consonant. In such words the first consonant (Cx) of the root is dissimilated in reduplication:

A B

44. Base = *khal jhilik
Reduplication = khalkal jhilik.jhilik
Consonantal Dissimilation = khalmal jhilik.milik

In consonantal dissimilation bilabial dissimilation is predominant (90%), frequent and most characteristic. Even within bilabial consonants /m/ is most frequent. The following is the hierarchy of dissimilating consonants proportion:

45. m: p: b: k̪: k̪, t = 14: 9: 5: 2: 1:

2.2.2.4 Ablauting

Ablauting is one of the processes of onomatopoeia and is a short of Vocalic Dissimilation in that the root vowel is ablauted and reduplicated to make an onomatopoeic stem:

46. ṇAknik, phAnphuñ, pAkpk, haThuñ, chAtchuñ, phAphup, phAphus, ṇAñph, dhArdur, ṇAñphuñ, TaAmTim, TaAmTun, gÃAguñ, kAkuñ, sÃksuñ, etc.

In the data high back vowel /u/ is frequently used for ablauting, however, the high front vowel /i/ is also found in isolated occurrences. The semantic functions of ablauting is outside the focus of this paper. Sapkota (1968: introduction) thinks the function of ablauting is also synaesthetic.

2.2.2.5 Vowel Harmony, Vocalic Dissimilation and Vowel Reduction

Onomatopoetic words can be classified mainly into two groups: (A) Geminated and (B) Nongeminated. If the ultimate consonant of the word is geminated, it is always followed by the vowel /a/, if it is not geminated there is usually Vowel Harmony except for the word which has /waA/ in the first syllable.

47. (A) Geminated:  (B) Nongeminated

(A) Geminated:

<table>
<thead>
<tr>
<th>G</th>
<th>a</th>
<th>a</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>NG</td>
<td>i</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>u</td>
<td>u</td>
<td>u</td>
<td>u</td>
</tr>
<tr>
<td>yA</td>
<td>yA</td>
<td>yA</td>
<td>yA</td>
</tr>
<tr>
<td>wA</td>
<td>wA</td>
<td>wA</td>
<td>wA</td>
</tr>
</tbody>
</table>

48. Examples

paTTa, paTTa, paTaTaTa, paTaTaTaTa,
piTTa, piTTiTTa, piTTiTTiTTa, piTTiTTiTTa, ...

G = kussa, husussa, husussa, husussa, ...

phyAlta, phyAltyAlta, phyAltyAltyAlta, phyAltyAltyAltyAlta, ...
kwaAca, kwAcyAca, kwAcyAcyAca, kwAcyAcyAcyAca, ...
patpat, patpatpat, patpatpatpat, ...
piTTiT, piTTiTTiT, piTTiTTiTTiT, ...
NG - *phutphut, phutphutphut, phutphutphutphut, ...
    kyAcyAcyAc, kyAcyAcyAcyAc, kyAcyAcyAcyAcyAc, ...
    kwAcyAcyAc, kwAcyAcyAcyAcyAc, kwAcyAcyAcyAcyAcyAc, ...

Emeneau (1969) and Masica (1991) seem to have classified the
nongeminated type as nonreduplicated and the nongeminated type as
reduplicated, however, even the geminated type seems to be
basically reduplicated and assimilated but we are not at the
moment, going deep into it. We hypothesize that:

(i) The unmarked vowel /a/ after the geminate is the result of
    Vowel Reduction.

(ii) In case of /wA/ at the first syllable there is a clear Vocalic
    Dissimilation in that all the medial vocoids are /yA/.

(iii) Except for /wA/ at the first syllable all the vowels in the
    nongeminate type show Vowel Harmony, that is, there is
    repetition of the same vowel in the succeeding syllables.

(iv) Even the geminated type in which case the final vowel is
    reduced we can crystalize Vowel Harmony.

2.2.2.6 Agglutination

Agglutination is the main process of stem formation in
onomatopoeia.

2.2.2.7 Consonantal Assimilation

In the examples like (49) if the root initial consonant is
voiced, the root final consonant is also voiced:

\[ \text{A} \]

\[ \text{B} \]

\[ kyAcyAc \quad kyAcyAc \]

\[ kut \quad kuti \]

\[ Tap \quad Tap \]

\[ tap \quad tape \]

\[ gyAgyAgyA \]

\[ gud \quad gudi \]

\[ Dab \quad Dab \]

\[ dab \quad dabe \]

In the data we do not find:

\[ *gyAcyAcyAc, *kyAgyAgyAcyAc, *gut.gut, *kud.kud, *Dab.Dab, *Tab.Tab, \text{ etc.} \]

The reason for this Consonantal Harmony may be due to
Sandhi, but word-initial voicing cannot be explained mainly by
sandhi.

However, Voicing Harmony or assimilation of this type is not
maintained if the root initial consonant is an aspirate:

\[ \text{A} \]

\[ \text{B} \]

\[ 51. \text{Thuk.Thuk} \quad \text{Dhuk.Dhuk.} \]

\[ \text{phat.phat} \quad \text{bhat.bhat} \]

\[ \text{khap.khap} \quad \text{ghap.ghap} \]

2.2.2.8 Deletion

A major part of the data is made up of reduplicated roots
where the successive initial consonants undergo deletion:

\[ 52. \text{Base} = *pIT \]

\[ \text{Reduplication} = \quad \text{piT.piT.piT.piT .......piT} \]

\[ \text{Deletion} = \quad \text{piT.piT.piT.piT .......oa} \]

\[ \text{Gemination} = \quad \text{piT.piT.piT .......Ta} \]

\[ \text{Output} = \quad \text{piTiTi .......TTa} \]

2.2.2.9 Constraints

In a geminated type of onomatopoetic word the same consonant
cannot repeat in every syllable except for the case of medial
clusters.

\[ 53. \text{Unpermitted} \quad \text{Permitted} \]

\[ *ka.ka.kka \quad \text{ka.kra.kka} \]

\[ *ku.ku.kka \quad \text{ku.klu.kka} \]

\[ *kwA.kyA.kka \quad \text{kwA.ksyA.kka} \]

For other constraints see the inventories of vowels and
consonants.

2.2.2.10 Formatives

In the derivation of onomatopoetic words certain formatives
(like -i, -ti, -A-) are also used:
54. Base -ti A-a
    kic kic.i, pic-i, kic.ti kic-A-kic kic.ca
    phaT phat.phat-1/phaT phaT-ti/phaT-A-phaT phaTTa

2.2.3 Grammatical Categories of Onomatopoeia

Onomatopoeic words are basically modifiers of verbs and
verbal, that is, they are basically adverbials, however, derived
words from an onomatopoeic stem are verbs (Emeneau 1969
nominals and adjectivals too.

55. A. pacakka (adv.), pacakA (n.)
    B. phaTakka (adv.), phaDko (n.), phaDkanu (v.)
    C. cimsikka (adv.), cimsO (adj.), cimsyAunu (v.)

According to Dahal (1971) 85% of onomatopoeia are particles,
7.15% are verbs, 5.5% are nouns and 2.35% are adjectives.

3. Phonaesthetics: Sound Symbolism

Although Sapkota (1968) and Masica (1991) have hinted
towards this direction, Dahal (1971) has entirely focussed his
attention to this topic. Phonaesthetics, phonaesthesia or
synaesthesia is the topic of sound symbolism, that is, 'the
associating a particular sound or group of sounds with particular
meaning' (Hartmann and Stork 1972). Such sound symbolic units
are often called 'phonaesthetics' (Lyons 1977:ch:4).

By definition, onomatopoeia is 'the formation of words
imitating natural sounds' (Hartmann and Stork 1972). The
definition of Sanskrit grammar is also similar (see Abhyankar
1961) but according to Pandit (1912:444-5) sounds in onomatopoeia
are not exact sounds; they are sound symbols. Thus Masica
(1991:78-80) is right to say that 'onomatopoetic is a misnomer if it
is taken to imply sound imitation only. These formations have a
far wider reference, to sensations of many others kinds - visual
and tactile'.

3.1 Reduplication

According to Masica (1991) reduplication implies iterativity
of the phenomenon is question. Nepali data conforms to this
generalization:

56. *Thaṇa = a sound due to sudden contact of a hard
    object against a metallic surface.

Thaṇa, Thaṇ = an iteration of the same action.

57. *chal = one flow of water in the waterfall.
    chal.chal = iteration or repetition of the same action.

3.2 Gemination

According to Masica (1991) 'nonredundicated stems, typically
with the suffix -ak, are available to express phenomena of a
sudden, noniterative nature' (cf. caTakka, paTakka, etc.).
According to Sapkota (1968 : introduction) gemination of the
consonant in the final syllable indicates a sudden stop. But our
data show that Sapkota (1968) is correct so far as the gminating
consonant is neither a liquid (r, l) nor the sibilant:

58. pyAkka, pyAcca, pyATTa, pyAtta, kyAppa, guDuDDa,
gudda, Thwaṇṇa, jhwaMama, phanaṇna.

59. khora, khululla, huAssa

But even in case of gminating liquids or the sibilant, the word
denotes an imitation of a single shot completed action. Thus in a
way Sapkota (1968) is correct.

3.3 Consonantal Dissimilation

Consonantal Dissimilation hints at symmetrical
counteraction.

60. kicimici, kacmac, Dhulk. muluk, latpat, lyAphyAṇ,
    Dhasamamma.

Only future research will hopefully crystallize the meaning of
Consonantal Dissimilation.

3.4 Consonant Cluster

A root final consonant usually denotes a pause or a stop and the
second component of the cluster indicates loosening (or further
tightening) the tight clutch of the preceding component and also
a change in direction:

61. kukrukkA, kulkukka, phyAṇiṭhaṇṇa, phyAṇṣṭhaṇṇa,
hokṣyAkka, pukukka, bāṇcyAṇi, bhṛṇcun, chwAllyAṇṇa.
There are grounds to enearth meaning correlation with such clusters in future.

3.5 Ablauting

Ablauting denotes iteration of an action with different configuration.

62. kAkn, phA'npha, su'k.kuw', pATpT, etc.

3.6 Vowels

According to Dahal (1971) vowels /i, u, a, yA, wA/ are in the increasing hierarchy of intensities or loudness. Acoustically also this observation sounds correct:

63. Tỳ.Tì  'sound of a small bell'.
   Tùn.Tùn  'slightly louder sound of a bell'.
   Tàn.Tàn  'bigger sound of bigger bell as in a shrine'.
   TyÀn.TnyÀn  'louder sound of a bell'.
   TwÀn.Twàn  'loudest sound of a bell'.

But Dahal has mixed pitch with loudness. In fact, pitch goes to the opposite order, where /i/ has the highest pitch and lowest sonority or loudness:

64. piciànu  'sound of turbulent stream of water coming from a small slit'
   pu'cucca  'sound where turbulence is less, muzzle is round, and the area of the surface under impact is smaller and circular'.
   pacucuca  'viscous pasty material coming out of a bigger muzzle with relatively less force, hence with negligible sound'.
   pyAcyAcKa  'imitation of viscous material covering irregular and oblique larger surface, there is no sound whatsoever'.
   pu'AcyAcKa  'dissimilation of vowel indicates two actions in opposite directions; this is an imitation of smearing such substance irregularly.

This gradation of vowels indicates:

i) relative increase in the size of the object.
65. Tìnà < Tùnà < Tànà < TyÀnà < TwÀnà.
   A. smaller bell ———— larger bell
   B. less louder ———— more louder.

ii) decreasing pitch: Each vowel of the successive words in (65) shows relative decrease in pitch of the sound of a bell.

iii) increasing loudness: Each vowel of the successive words in (65) shows relative increase in loudness and intensity.

iv) shape: (a) The vowel /u/ indicates some kind of circularity or loudness in the shape the participating object.

66. cusukka, puTukka, bhulukka, budrukka, hututta, gududda, lipuka, pukluka, pucca, etc.

On the other hand /i/ indicates some kind of length or unidimensionality:

67. silitta, picca, cirikka, pilitta, pititta, lipika, etc.

c) /yA/ indicates obliqueness in the original shape of the object:
68. pyAtyAtta, macyAkka, paTyAkka, phyAtyAkka, pyAtyAtta, syAryAppa, etc.

d) /wA-yA/ sequence in syllables indicates sudden change in the shape of an object:
69. kwAplyAkka, kwAkryAkka, kwAcyAkka, chwAlyAtta, rwAtyAkka, kwATyAkka, bwADryAkka, phwAncyAcKA, bwAncyhAñña, etc.

e) /a/ is unmarked in shape and size.

f) high vowels /i, u/ indicate love and affection while /yA, wA/ indicate disgust and /a/ is unmarked in modality:
70. A. puTukka, gujukka, cisikka, cusukka, pulutta, TìnìTì, pittika, gilikka, gujuja, etc.
B. pwAłyAkka, gwAłyAkka, cyAłyAkka, cwAłyAkka, pyAłyAtta, pwAłyAtta, TwaňTyAň, TyAňTyAň, TwaňTwaň, pyAłyAkka, gyAłyAkka, gyAłyAkka, etc.

These different indications of size, shape, pitch, loudness, dimension, obliqueness, love, disgust and sudden change in shape and direction are symbolically extended in onomatopoetic words to generate different shades of meanings.

3.7 Consonants

The same consonant in the geminate form, in the cluster, in the intervocalic position and in the initial position gives different shades of meaning. The meaning of a consonant is clearer in the geminate form, less clear in the cluster, even less clear in the medial position and is least clear in the initial position.

3.7.1 Nasals: A nasal is basically a symbol of resonance which is extended and abstracted to indicate thrill, giddiness and immersion. According to Dahal (1971) the loudness of a nasal is in the following hierarchy:

71. n > m > n.

72. chaň. chaň 'sound of a waterfall'
   chaman. chaman 'sound of an anklet'
   chann. chann 'sound of coins'.

Since the alveolar nasal /n/ is not found in the initial position and the velar nasal /ň/ is not found in the intervocalic positions for comparison, we have taken cluster and geminate forms.

73. Tanna 'sound of striking a metallic drum with a stone'
   Tanna 'tightness'
   Tanna 'full (like an airtight football)'

74. kňærAňa (a) 'sound or situation of something becoming dry and crisp'
   (b) 'be frightened and pale as if with fear'

kňærAňa 'sound of a plate or smaller object on a hard surface' (metallic sound)

kňærAňa 'sound or situation of falling down of some big object like a man from a considerable height'

The alveolar nasal in the intervocalic position represents reasonable tension, temper, giddiness and thrill:

75. A. Giddiness & revolution: phanaka, phananna,
   B. thrill: jhanaka, sanaka, hananna, jhananna.
   C. tension: tanaka, tananna, Tanakka.
   D. resonance: bhanaka, bhananna.

The bilabial nasal as a geminate represents introduction, closure, immersion, clutch and also resonance like its phonetic configuration:

76. kwAmma 'putting something into mouth very fast at a shot'
   cuAmma 'to kiss or immerse something into a liquid'
   jhwaAmma 'to leap into water or onto a tree'
   ruAmma 'to pierce with a needle'
   dhumma 'to be cloudy'
   gumma 'to be in a closed compartment'

3.7.2 Liquids

a) Lateral: The lateral liquid /l/ indicates plasticity, soft consistency, liquidity, slipperiness... and ... smooth flow (Dahal 1971). This synaesthetic meaning is clear (A) in the case of geminates, (B) clusters (C) in the intervocalic position and (D) in the initial position in the decreasing hierarchy.

77. khululula (flow of water),
   phyAłyAlla (act of spreading fabrics in the air)
   puklukka (to be uprooted with relatively no force)
   phyAñlyAňa (to be untidy and loose)
chwatlyAŋŋa (sound or act of falling something into water)
guthlukka (delicacy of a healthy baby)

b) Trill: The trill /r/ is associated with vibratory, craky or tremulant action in the form of geminate and in the intervocalic position, but in a cluster it is also associated with stiffness:

78. rwa2yana (act of drilling with an electric drill)
ryatta (act of cutting with a saw)
ka2yakka (sound or act of breaking of a twig)
ghar2yakka (sound or act of opening a door)
ŋar2yAŋŋa (sound of a lion's attack)
cyar2a (cry of a baby)
jarro (stiffness or hardness of ground or some object)
barra (sound of water falling down a pipe)
kaar2aka (being stiff with cold or fear)
budrukka (act of jumping)
phanraŋŋa (sound of some small metallic object onto a hard surface)

Usually liquids denote continuity and /rl/ denotes momentary turn; kurukka (breaking of a small wooden object), kurukka 'act of swallowing'

3.7.3 Fricatives

a) Sibilant: Very similar to the phonetic shape of the sibilant /s/ it is associated with airiness, hissing 'release of air, slackness' (Dahal 1971), senselessness, disorder and nothingness where each of the successive meaning seems to be an extension in the basic meaning of airiness. It also denotes continuity.

79. khussukka (whisper), phussukka (hissing), bhusukka (senselessness) musukka (depression of air due to a smile), chuassa (touch unconsciously), nissa (smile showing teeth), hussa (disordered beard), Thwassa (act of breaking a green chilli), hwassa (bad breath or smell), khoslyAŋŋa (sound inside straw, hay or cornskin),

cyApsya2kka (be skinny and concave faced), aspatta (to feel uneasy due to gas formation in the stomach).

b) Glottal: Because of phonological constraints of the glottal fricative /h/ it occurs only in the initial position and indicates air or liquid through opening:

80. hulukka (vomit), hwAlAlla (flow of water), hwAssa (bad breath), hua (cry), hututta (flow of water through a pipe), haphap (panting with heat)

3.7.4 Africates

Very similar to the phonetic nature of an africate, that is, stop followed by friction, africates indicate compression and release of liquid, colloid or some viscous or compressible substance. The voiceless /c/ denotes more pressure applied than the voiced /ʃ/. The consistency of the substance is thicker in the case of voiceless and is loose in the case of voiced /ʃ/. The extended meaning of an africate is 'unpleasantness' (Dahal 1971).

81. A. kuqaca (stool under constipation), kyAcca (stepping on viscous mud or soft dung), kyackyAc (repeatedly pressing)

B. gujuija (boiling of something like soft rice), guAja (soft mud), guAjgyAj (thick mud for a longer stretch)

3.7.5 Stops

a) Grave In onomatopoeia the voiced component of the grave (velar and bilabial stops /g, gh, b, bh/) is not used except in the initial position. Hence only the voiceless grave stops /k, kh, p, ph/ are found where the aspirates /kʰ, pʰ/ are less common.

i) Aspirates The velar aspirate only occurs as a preceding member in a cluster; but the bilabial aspirates occur both in a cluster and in the final position:

82. A. Velar akhraka, jakhrauka, myAkhlyAkka, etc.

B. Bilabial lyAphryAkka, lyAphlyAph, etc.

Aspirates indicate uneasiness.

ii) Unaspirates The velar stop /k/ is found only in the root final position or in the geminate form. In both cases it denotes
'sounds of clipped sharp ends, throaty sounds, ... small area of contact of hard clashing object, smallest duration of sound or action' (Dahal 1971) and complete halt of an action. This stop in onomatopoeia is characteristic of Indo-Aryan (Emeneau 1969). Its geminated form is most productive and covers 40% of onomatopoetic geminates.

83. khwAkka (cough), ghvAkka (dogbite), ṅkAkka (kick down), chyAkka (chop off), TyAkka (wooden sound along thin line of contact), pyAkka (to be in a position of closing the throat with the back of the tongue), bhakka (keeping mum out of anger), ṃkAkka (vomiting), kukrukka (crouching position), ṅkAkAkka (situation of loose throat), phakrakka (act of blooming).

The bilabial stop /p/ usually denotes sudden closure of a circular surface like human lips where the line of contact is peripheral.

84. kwAppa (to eat suddenly in a guffaw), cyAppa (tight clutch), TyAppa (tight clutch), DhyAppa (closing a door), jhyAppa (putting out a lamp), lýAppa (to lick something at a single action), Ḍappka (to feel extremely hot), ḍhapakka (spilling out something due to the sudden upside/down position of a container), ḍhapakka (to cover a pot with a lid), ṃapakka (well ordered)

b) Acute

1) Dental stops /t, th, d/ denote plasticity and pastlike consistency fallen to cover larger area. The voiced consonant denotes less acoustic energy than its voiceless counterpart.

85. khatatta (sound of loose dung), ghatatta (to pour some liquid through a bigger spout), cwAtta (tearing a page), thutta (to snatch suddenly), phutta (to come out suddenly), lýAtta (smearing or pushing greasy or slushy or soft substance), ḋwAtta (coming out of a soft substance suddenly)

86. gududda (boiling of some paste), ladbud (sticky soup). The voiced dental /d/ usually denotes hot sticky substance.

87. guttha (to be angry), guthlukka (convex checked), loṭhryAkka (to be exhausted).

ii) Apical alveolar stops /T, Th, D/ usually denote wooden hardness, smaller area of contact greater force and tightness. Even here /D/ denotes less acoustic power.

88. kaTάTTa (sound caused by the friction of two wooden planks), khaTάTTa (boiling thick milk), caTάTTa (sound of burning straw), piTítTa (sound of roasting corn), maTάTTa (sound of goat)

89. guDĐDa (sound of hoofs)

90. arrTTha (to be stiff, hard or stubborn).

3.7.6 Consonants in the Initial Position

3.7.6.1 Place of Articulation

Places of articulation are in the following hierarchy of sonority and loudness (This conclusion needs further verification).

91. k > T > p > c > t

92 Examples

kira (sound of an electric bell)
Tirra (less louder and higher in intensity of the sound of an electric bell)
pirra (sound of friction caused by lips or circular opening)
cirra (chirping of a bird/sound of cutting a cucumber)
tirra (sound of imitation of falling a liquid over a very small area of contact)

3.7.6.2 Manner of Articulation

Aspiration and voicing seem to give the following hierarchy of increasing size and loudness.

-voice < -voice < +voice < +voice
-aspiration < +asp < +asp < +asp

93. karra (sound of an electric bell in low frequency)
kharra (sound of pulling a plank over a gravel surface)


5. Functions

Grammatically onomatopoeic words usually function as verbal modifiers. They are very similar to verbal classifiers in other languages like Newari (see Bhaskararao and Joshi 1985) to crystallize various shades of meanings of a particular verb.

95. hissa, khitta, khititta, galalla, musukka, musumusu, kicca, nica, khittera, khititta.

Each of the word in (95), is a modifier of the verb haŋs 'laugh'. They represent different colouring of the verb as a spectrum. We are not going deeper into it in this paper.

Although the majority of the occurrences on onomatopoeia are adverbia, there are derived nominal, adjectival and verbal onomatopoeic words.

96. Verbs: akakinu (to be puzzled), kakrinu (to be numbed), kiccinu (to be under pressure), kocnu (to press into a volume), gijinu (to joke), ɲAknu (to kick down), cyAtnu (to tear), camkinu (to shine), cimlinu (to close eyes), copnu (to ringle), chakAunu (to chop off), tankinu (to be tense), paDkinu (to burst), phurkinu (to be happy)

97. Nouns: kuDko (piece), kulo (canal), khapki (abuse), khopo (hole), khalko (act of washing face when a relative dies), ghuTkro (potation), ghiDghiDo (last wish), ɲAŋro (mumbling person), cuDki (sound of two fingers), ciro (a slice of cucumber, etc.), casko (shock), cuski (sip), chanak (hint), cher (diarrhoea), jhapki (nap), jhikko (wink), Turre (diarrhoea), phirki (churn), DwAŋ (drum), tapkeni (dripping), thuk (spit), dhipri (lamp), dhAro (tap), pacakA (syringe), phyAŋ (hemisphere), surpo (sip) hussu (unconscious).

6. Conclusion

Further inquiry into this area of linguistics is necessary. Although onomatopoeia is only a small subset of the lexicon, etymology of many Nepali words will reveal their origin in onomatopoeia.

References
The Feature System of
Newari Segments

Tej R. Kansakar*

1. Introduction

The phonetic realization of sequence of utterances is composed of a string of linearly ordered discrete phonetic segments. The phonetic representation of these segments are generally specified in terms of their internal structure rather than as indivisible units. This internal structure consists of features which may serve different functions in individual languages. Basically, the features can be said to have three functions: (1) phonetic function, (2) phonological function, and (3) a device for defining natural classes of sounds. When features occurring in phonetic representations describe the systematic phonetic segments, they are known to have a phonetic function, and are called 'phonetic features'. When features are used to capture the phonological oppositions in a language at the abstract level, they serve a phonological function and likewise are called 'phonological or distinctive features'. An important fact about phonological systems is that segments typically group themselves into phonetically definable natural classes. In this respect it is the features which can define natural classes of segments, and it is through such feature specifications that rules can apply to natural classes. Chomsky and Halle (1968:355) give considerable importance to this function when they claim that "...judgements of naturalness are supported empirically by the observation that

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it is the 'natural' classes that are relevant to the formulation of phonological processes... and if a theory of language failed to provide a mechanism for making distinctions between more or less natural classes of segments, this failure would be sufficient reason for rejecting the theory as being incapable of attaining the level of explanatory adequacy."

Further, the features in their phonetic function indicate a given set of values based on articulatory, acoustic or perceptual representations. In their phonological function, the features will be reduced to two co-efficients to capture phonological contrast. Thus if the phonetic value of a sound depends on the presence or absence of a set of features, the phonological opposition between sounds are captured strictly by the use of binary features which differentiate the lexical items in a language.

The feature system used in this analysis is based almost exclusively on the framework introduced by Chomsky and Halle (1968: 293-329) which they claim is designed to capture phonological contrasts as well as to describe the phonetic content of underlying segments and those derived by phonological rules. The system of features proposed by Chomsky and Halle (henceforth CH) in Chapter VII of The Sound Pattern of English (SPE) seems to differ in many important respects from those originally proposed by Jakobson, Fant and Halle (1952), Jakobson and Halle (1956) and Halle (1964). Such changes and modifications in the proposed feature sets appear to be very rapid in generative phonology, but these are however to be expected in view of the need to account for new data that are constantly being acquired by linguists. We need to remember here that only a very small proportion of the world's languages have been studied or described, so that the features so far proposed cannot be taken as fully adequate to describe all natural languages. However, any new proposal claims to have universal application in so far as it expresses significant generalizations on the phonetic structure of known languages. It is probably on this ground that Jakobson, Fant and Halle (1952) hypothesized that a limited number of features, say 12 to 15, would together account for all the oppositions found in the world's languages.

2. A System of Phonetic Features

The three major class features that are relevant to differentiate the phonological segments are consonantal/non-consonantal, sonorant/non-sonorant, and vocalic/non-vocalic (or syllabic/ non-syllabic). Stops, affricates, fricatives, nasals and liquids are [+cons] whereas vowels and glides are [-cons]. Vowels, glides, nasals and liquids are [+son], whereas stops, affricates and fricatives are [-son] (or obstruents). Vowels are normally specified as syllabic while the consonants in general are non-syllabic, although it is possible to have syllabic liquids or nasals if they constitute the nucleus or peak of a syllable. Glides however cannot be specified as [+syllabic] since syllabic has the effect of converting them into vowels. The most natural grouping of segments therefore would be in terms of four major classes, i.e. true consonants, liquids and glides on the one hand, and vowels on the other. The features that define these classes of segments can be represented as follows:

<table>
<thead>
<tr>
<th>Consonantal</th>
<th>Glides</th>
<th>Liquids</th>
<th>Vocals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consonantal</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Vocalic</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

These specifications show that the class of true consonants (including stops, fricatives, affricates, and nasals) is specified as [+cons, -voc], and the class of vowels is given the opposite value of [-cons, +voc], but the class of liquids (e.g. /l/ and /r/ sounds) share the feature [+cons] with true consonants; the vowels and liquids share the feature specification [+voc]; and vowels and glides share the feature [-cons]. These specifications indicate that true consonants have no feature coefficients in common with the vowels, as can be seen from their feature specifications in Table 1. In other words, while true consonants and vowels are in clear contrast, liquids and glides are intermediate between these two classes. This would imply that if two segments have properties in common, they can undergo phonological rules together or have similar functions in the environments of
phonological rules. This assumption as reflected in the Jakobsonian features is questioned by CH when they point out serious problems with these features. For example, the features [Consonantal] and [Vocalic] which define four major classes of segments do not reveal clear opposition between vowels and non-vowels if the class of non-vowels includes liquids and glides. In a CVVC syllable structure language such as Newari, it is not clear what C represents other than that it is [-voc.]. This situation would miss the generalization that not all segments are syllabic, i.e. while vowels are always syllabic, the consonants usually are not syllabic. CH therefore suggested the new feature [Syllabic] to replace [Vocalic], so that a CVVC word structure constraint can be represented more clearly as follows:

# # [-syll. [+syll. [-syll.] [+syll.] ... # #

The three major class features as proposed by CH can be summarized as in the following matrix:

<table>
<thead>
<tr>
<th></th>
<th>Vowels</th>
<th>Nasals</th>
<th>Liquids</th>
<th>Glides</th>
<th>Obstruents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonorant</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Syllabic</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Consonantal</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

Notice that the feature [Syllabic] is necessary to differentiate not only consonants and vowels, but also vowels from glides. In Newari, vowels are [+syll.] and all liquids, nasals and glides can be specified as [-syll.] since they normally do not function as syllabic peaks in the syllable. Further, the alternation between vowels and glides is a widely occurring phenomenon in Newari speech, and as suggested above, vowels can become [-syll.] when converted into glides or conversely, glides can become [+syll.] when converted into vowels. The vowels, liquids, glides and nasals specified as [+son.] are "sounds produced with a vocal tract cavity configuration in which spontaneous voicing is possible", while liquids, nasals and obstruents marked as [+cons.] "are produced with a radical obstruction on the midsagittal region of the vocal tract." (CH, 302). It follows from this that obstruents do not qualify as [+son.] sounds, and vowels and glides must be marked as non-consonantal. This scheme for defining the major classes as summarized in Table 2 above will be adopted for Newari and used consistently throughout this analysis.

The total system of major class features as conceptualized by CH can be given a tree structure representation as follows:

1. + consonantal –
   - + sonorant –
   - + syllabic –
   - + nasal –
   - + continuant –
   - Vowels
   - Glides
   - nasals
   - non-nasals
   - fricatives
   - + del. release –
   - lateral
   - non-lateral
   - affricates
   - stops

As can be seen, CH abandoned the feature [Vocalic] and introduced two new features [Syllabic] and [Sonorant] while retaining the previous features [Consonantal] and [Nasal]. It may be noticed that while vowels and glides differ in the feature specification [syllabic], liquids and nasals differ only in nasality, i.e. liquids are [-nasal], and nasals are [+nasal]. These four features have been found to be adequate to define the major classes of segments. This, of course does not mean that these four features are adequate to differentiate the other distinctions among the segment types within these classes, such as those of secondary articulation, or of place or manner of articulation. For this purpose CH introduce the features [Anterior] and [Coronal] to characterize the stricture in vowels and in consonants, and replace the previous Jakobsonian terms 'grave' and 'diffuse' which in fact cover the same phonological ground in a slightly different way. The purpose of this revised framework with regard to the primary cavity features is that the vocalic and consonantal stricture cannot be specified on identical grounds, both in the manner and location of such stricture. The relationship between consonants and vowels in terms of shared properties is made more explicit by CH when they introduce the
features [High], [Low] and [Back] which 'characterize the placement of the body of tongue' to distinguish between the tongue position of vowels and to represent secondary articulations such as palatalization, velarization and pharyngealization. In other words, both the vowels and consonants such as palatals, velars, uvulars and pharyngeals can be conveniently characterized in terms of these three features, as in the Table given below (CH, 305)

<table>
<thead>
<tr>
<th></th>
<th>Palatals</th>
<th>Velars</th>
<th>Uvulars</th>
<th>Pharyngeals</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>+</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Back</td>
<td>-</td>
<td>+</td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>

Or to show the co-relation much more clearly, the following characterization of vowels and consonants can be stated:

(2) **Vowels**

- High (diffuse) palatalization
- Low (compact) velarization
- Back (grave) pharyngealization

The fact that similar features can be identified for both vowels and consonants leads CH to treat the four points of secondary articulation (palatalization, velarization, uvularization and pharyngealization) as vowel features superimposed on consonants.

Another significant proposal that is of special interest in this analysis is the feature [Heightened Subglottal Pressure] introduced by CH to account for the presence or absence of aspiration in consonants. They maintain that the aspiration phenomenon cannot simply be explained by tenseness of the supraglottal muscles or tenseness in the subglottal cavities. CH further recognize the different mechanisms involved in the production of tense voiceless stops and voiced aspirated stops. This situation would obviously apply to Newari consonants as well except that the question of voiced aspirated stops is yet a controversial issue and cannot be resolved satisfactorily without oral pressure measurements or fiberoptic evidence as have been demonstrated by Ladefoged (1976) for Owerri Igbo, and Ingemann and Yadav (1978) for Maithili. The acoustic clue in Newari seems to be that voiced consonants accompanied by breathiness (or murmur) are voiceless at the onset and then is followed by voicing (or breathiness which may not involve voice) during and immediately after the release of an articulatory stricture. This fact would tend to cast doubt on CH's contention that voiced aspirated stops are produced without tenseness but exclusively with heightened subglottal pressure (CH, 326).

The other features proposed by CH include Distributed and non-Distributed which in addition to specifying the differences in points of articulation, also indicate differences in 'the length of the zone of contact'. This length of constriction, according to CH, is acoustically significant and the distributed sounds are defined by them as being "produced with a constriction that extends for a considerable distance along the direction of the airflow; non-distributed sounds are produced with a constriction that extends only for a short distance in this direction" (312). This feature however does not seem to add any new dimension to articulatory description since the distinction between apical and laminal on the one hand and retroflex and non-retroflex consonants on the other, are already recognized. CH however maintain that "the difference characterized by distributed vs non-distributed does not correspond precisely to the distinction between laminal and apical" (313). They justify this feature by rejecting the view that the apex or the blade of the tongue are the prime determiners of the zone of contact. In this connection, they suggest that labials and labio-dentals could very well be classified as [+distributed] and [-distributed] respectively. This feature could also possibly apply to the characterization of the alternation between Newari dental stops and alveolar flaps.

Finally, we may note the greater explicitness given by CH to the distinction between strident and not-strident sounds which in the previous literature has been somewhat vague and ambiguous. While 'stridency' is essentially an acoustic feature, all kinds of miscellaneous distinctions such as stops vs affricates, apical vs
laminal etc have been assigned the feature [+strident] or
[−strident] in the past. The degree of ‘greater noisiness’ which
distinguishes strident sounds from their non-strident counterparts,
is now restricted by CH to the distinction between labio-dental
and bilabial spirants. Such a distinction however is not
phonologically significant in Newari and instead we would need
to retain the feature [Continuant] to distinguish fricatives from
stops, and the feature [Abrupt Release] or [Delayed Release] to
distinguish stops from affricates on the one hand, and affricates
and fricatives on the other. We shall thus ignore the various
other closure and release features adopted by CH to describe
various kinds of clicks, ingressive and ejectives as these do not
enter the phonology of Newari.

With this framework as a background, we can now go on to
analyse the feature specifications of Newari segments in some
detail.

3. Features specifications of Newari segments

The systematic phonemes which specify the underlying
representations of spoken Newari may be prepresented as
follows:

<table>
<thead>
<tr>
<th>Obstruents</th>
<th>Liquids and Nasals</th>
</tr>
</thead>
<tbody>
<tr>
<td>p c k</td>
<td>m n (η)</td>
</tr>
<tr>
<td>ph th ch kh</td>
<td>mh nh</td>
</tr>
<tr>
<td>b d j g</td>
<td>l</td>
</tr>
<tr>
<td>bh dh jh gh h²</td>
<td>l h</td>
</tr>
<tr>
<td>s</td>
<td></td>
</tr>
<tr>
<td>(r, rh)³</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glides</th>
<th>Vowels 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>w y</td>
<td>i u</td>
</tr>
<tr>
<td>e o</td>
<td></td>
</tr>
<tr>
<td>ε: a</td>
<td></td>
</tr>
<tr>
<td>æ: Æ</td>
<td>→ a →</td>
</tr>
</tbody>
</table>

3.1. Vowels

We may first look at the vowel system and the features which
are necessary to differentiate the individual vowels. The body of
tongue features [High], [Low] and [Back] are used by CH to specify
vowels in terms of tongue height and tongue retraction. The two
parameters in vowel height, namely [High] and [Low]⁵ and one
parameter for tongue retraction, i.e. [Back] are defined on the
basis of the level and direction of the movement of the tongue
from its neutral position. The neutral position is normally taken
to be the approximate position for the vowel [e] as in the English
word ‘bed’. If the tongue rises above the neutral position, the
vowel produced is said to be [+high]; and if the tongue moves
down from the neutral position, the vowel can be specified as
[−back] although it may actually be central. The high vowel is
[+high], the low vowel is [−low] and the mid vowel is [−high,
−low] since the mid vowel is neither high nor low. Accordingly,
/i/ and /u/ are [+high]; the low vowel /a/ is [+low]; the mid
vowels /e/ and /o/ are [−high, −low] and the central vowel /ə/
must be marked as (−high, +low, +back) since it can cover the
area between mid central (but somewhat lower than /e/) and low
back, as indicated in Table 4 above. On a different dimension, the
vowels /o/ and /u/ are produced with tongue retraction and are
therefore [+back]. The tongue moves to a non-back (front) position
in the production of the vowels /i/ and /e/, and these vowels
therefore constitute the feature [−back]. The centralized vowel
/a/ is articulated with considerable tongue retraction, so that the
feature [+back] seems appropriate in describing it, and the vowel
/a/ ranges from front to mid, and the feature [−back] can be
assigned to it although these vowels in particular are subject to a
good deal of fluctuation (see Friedman et al. 1983 for a detailed
analysis of the variants of Newari vowels).

Further, the non-low back vowels are produced with the
rounding of the lips and the rest of the vowels are produced
without labial involvement. So the feature [Round] is required to
differentiate vowels with lip rounding from those that have no
labial involvement. These feature specifications can be
summarized as follows:
This framework of classification when applied to the total system of Newari vowels, however, poses some basic problems. Friedman et al. observe that beside the six short vowels posited above, the Newari Vowel System has also eight long vowels /iː, eː, æː, aː, əː, oː, uː/, which are contrastive with the short vowels. The fact that Newari has five contrastive tongue heights in long front vowels cannot be accounted for by the CH system. The feature system, for example, is unable to distinguish /æː/ from /aː/ on the basis of relative tongue height, and is forced to differentiate the two in terms of front-back relation. The system thus cannot handle four, let alone five, tongue heights adequately, and the reason for this is fairly easy to locate. The features used for tongue height are non-orthogonal, i.e., there are only three possible combinations of [High] and [Low]:

<table>
<thead>
<tr>
<th>Back</th>
<th>Round</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>+</td>
</tr>
<tr>
<td>Low</td>
<td>-</td>
</tr>
</tbody>
</table>

Since the features [High] and [Low] are related in such a way that no segment can possibly be 'plus' for both, they are non-orthogonal and the result is that by means of these binary features only three tongue heights can be distinguished.

The most likely solution in this situation is to introduce the feature [Long] to distinguish long vowels from the short ones and to use the feature [Tense] to differentiate between various tongue heights that [High] and [Low] are not able to handle. Note however that for CH tense sounds "are produced with a deliberate, accurate, maximally distinct gesture that involves considerable muscular effort" (324), and the period during which this gesture is maintained is long relative to non-tense sounds. We can presume from this that tense vowels would tend to show a greater deviation from the neutral position than lax vowels. This fact is borne out by the analysis of Friedman et al., who represented the long vowel variants more on the periphery of the vowel area, indicating the greater distance involved in the movement of the tongue towards or away from the neutral position. The given analysis also reveals that the long vowels have a much smaller area of variation than their short counterparts, as plotted on their Cardinal vowel chart (Fig. 2: 3).

We however propose to use the feature [Tense] exclusively as a relative classificatory feature to distinguish pairs that differ for tongue height. Thus /æː/ could be [+tense] and /æː/ specified as [-tense] since both are [-high, -low] and hence not distinguished in terms of the features high and low. Similarly, /aː/ and /æː/ can be assigned the feature [+tense], and /aː/ and /æː/ specified as [-tense]. This solution would allow us to leave /aː/ and /æː/ as [-back] and still contrast with /æː/, while /aː/ and /æː/ specified as [+low] could still contrast with the vowels /æː/, /æː/ and /æː/.

This grouping of vowels and the feature specifications assigned to them can be represented in a tree structure such as the following:

```
  VOICES
     \-
    [+high] [-high]
   /-
  [+back] [-back]
 /-
[-long][+long] [-long][+long] [-long][+long] [-long][+long]
 |
 (i) (u) (a) (a)
```

We can also represent the long vowels in this way:

```
  VOILES
     \-
    [+high] [-high]
   /-
  [+back] [-back]
 /-
[-long][+long] [-long][+long] [-long][+long] [-long][+long]
 |
 (e) (e) (e) (e)
```

```
The feature classification given in (3) “involves a choice between two terms of an opposition that displays a specific differential property, divergent from the properties of all other oppositions” (Jakobson and Halle, 1956 : 44). The features themselves can be shown to be organized in a ‘hierarchical structure’ as is evident in the following complete feature matrix for the 14 Newari vowels:

Table 6

<table>
<thead>
<tr>
<th></th>
<th>i : e : æ : a : ø : o : u : w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syllabic</td>
<td>+ + + + + + + + + + + +</td>
</tr>
<tr>
<td>Sonorant</td>
<td>+ + + + + + + + + + + + +</td>
</tr>
<tr>
<td>High</td>
<td>+ + + + + + + + + + + + +</td>
</tr>
<tr>
<td>Low</td>
<td>- - - - - + + + + + - - +</td>
</tr>
<tr>
<td>Back</td>
<td>- - - - - - - - - + + + + +</td>
</tr>
<tr>
<td>Round</td>
<td>- - - - - - - - - - + + + +</td>
</tr>
<tr>
<td>Tense</td>
<td>+ + + + - - + - - + + + +</td>
</tr>
<tr>
<td>Long</td>
<td>- + - + + + - + - + - + +</td>
</tr>
</tbody>
</table>

As suggested above, it is possible to establish a certain form of hierarchy for the feature system. The features assigned to the higher level cover a larger number of classes of segments than at the lower levels. In this hierarchy, the collective feature segment will dominate the features [Consonantal] and [Syllabic], while the feature [Syllabic] will dominate other features such as [Sonorant], [High], [Low], [Back] etc which define the syllabic sounds. CH (410) note that “no vowel segment can be marked for the feature ‘round’ unless some vowel segment in the system is marked for the feature ‘high’. This principle thus “establishes a hierarchy in the availability of features for marking vowels in the lexicon”. This statement implies that the feature [Round] cannot be marked in the system unless there is a feature [High]. So the feature [High] takes precedence over the feature [Round], as can be seen in the tree structure (3) and feature matrix (Table 6) presented above. The feature [Long] has been placed at the lowest hierarchy because there is no marked jaw movement in the production of long and short vowels as in the articulation of high, low or back vowels. The tense vs non-tense on the other hand, serves to distinguish between vowels of differing height, and probably between pairs that differ from one another in respect to jaw angle.

We may next check this feature matrix for pair-wise contrasts. The feature [+high] distinguishes /i : e / and /u : u / from the rest of the vowels. The front vowels /i : e / are [+round] and [+back], distinguishing them from the back vowels /u : u /, which are [+round, +back]. While /i / and /u / are [+round], /i : e / and /u : u / are [+long]. Thus the high vowel is pair-wise distinct from every other high vowel. The mid vowels /e, e : ì /, /æ : a /, /o, o : æ / are distinguished from all other vowels by the feature combination [+high, -low]. Within the set of mid vowels, /e, e : ì / are [+tense] and the rest are [-tense]. Again, /æ : a / specified as [-back] is distinguished from /o, o : æ / which are [+back]. The remaining pairs are distinguished by the feature [Length]. The low vowels /æ : a, a : æ / are distinguished from all other vowels as a set by the feature specification [+low]. The feature [-back] serves to differentiate the front vowels /æ : a, a : æ / from the back vowels /o, o : æ / which are specified as [+back]. Further, the feature [-tense] distinguish /æ : a / from /æ : æ / which are [+tense]. The remaining pairs are likewise distinguished by [Length]. One obvious advantage of this system is that the long vowels which have no counterparts, e.g. /æ : æ / and /æ : æ /, are not dependent upon Length for their contrasting status within the system.

3.2 Consonants

We next turn to the consonants and the features which are necessary for differentiating the consonant system. As can be seen in the chart (Table 4) given above, stops, affricates and fricatives constitute the non-sonorant consonants (or obstruents), while nasals, liquids and glides are included under sonorants. Further, stops need to be differentiated from the rest of the non-sonorants, the stops distinguished from affricates and fricatives differentiated from stops and affricates. To differentiate stops
from affricates, the feature [+Abrupt Release] is required to indicate the abrupt nature of release in stops and the delayed release of arrested airstream in the case of affricates. The feature [+Abrupt Release] or [Delayed Release] however cannot be used to specify fricative sounds since there is no closure in the production of fricatives. The continuous friction noise in the release of fricatives suggest a marked difference in the configuration of the vocal tract as compared to the release of stops. The feature [Continuant] thus will serve to differentiate fricatives from the rest of the non-sonorants. The feature specifications of non-sonorants may be observed in the following matrix.

Table 7

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>ph</th>
<th>b</th>
<th>bh</th>
<th>t</th>
<th>th</th>
<th>d</th>
<th>dh</th>
<th>c</th>
<th>ch</th>
<th>j</th>
<th>jh</th>
<th>k</th>
<th>kh</th>
<th>g</th>
<th>gh</th>
<th>s</th>
<th>h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abrupt release</strong></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td><strong>Delayed release</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Continuant</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
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</tbody>
</table>

These classificatory features obviously are not adequate to distinguish the sounds within various classes. As can be seen, the three classes of sounds (stops, affricates and fricatives) are distinct, but share similar features within each class. We therefore need to introduce point of articulation features to differentiate individual sounds. The feature [Anterior] serves to differentiate anterior sounds from the non-anterior sounds. The anterior sounds are “produced with an obstruction that is located in front of the palato-alveolar region of the mouth” (304), while the non-anterior sounds are produced further back from the alveo-palatal region of the oral cavity. CH further classify sounds into ‘coronal’ and ‘non-coronal’ to distinguish sounds which are “produced with the blade of the tongue raised from its neutral position”, and those “produced with the blade of the tongue in the neutral position” (304). The distinction that CH make between coronal and non-coronal on the one hand, and anterior and non-anterior on the other may first of all be summarized in the form of the following:

4. [+coronal]
   (blade of tongue raised)
   dental
   alveolar
   palato-alveolar
   glides
   liquids
   retroflex vowels
   [+ anterior]
   (Obstruction in front of palato-alveolar region)
   consonants & liquids
   with obstruction in front of P-A region;
   labials
   dentals
   alveolars.

4. [–coronal]
   (blade of tongue lowered)
   uvular
   labial consonants
   tongue body consonants
   non-retroflex vowels
   [– anterior]
   (no such obstruction)
   Vowels (without constriction in oral cavity);
   palato-alveolar
   velar
   uvular
   pharyngeal

The features [Anterior] and [Coronal] can be assigned to the complete set of Newari consonants, both obstruents and sonorants, as follows:

Table 8

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<th>h</th>
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<tbody>
<tr>
<td><strong>Anterior</strong></td>
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<td><strong>Coronal</strong></td>
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<td><strong>Anterior</strong></td>
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The features so far proposed howeverfail to differentiate aspirated, non-aspirated, breathy, and voiced obstruents and sonorants in our feature system. For this purpose we introduce CH’s source feature [Heightened Subglottal pressure] (HSP) besides the feature [Tense] to indicate that sounds produced with HSP may not involve tenseness in the ‘supra-glottal musculature’. It is however doubtful whether [HSP] is independent of tenseness.
of consonants may involve advanced or retracted tongue-root positions), and if other conditions must be accounted for to explain the aspiration phenomenon.

While attempts have been made to explain aspiration of stops in terms of voice onset time, recent investigations reveal that it is 'glottal width' and 'timing of the glottal widening' which are key factors in the characterization of aspiration in voiced or voiceless consonants. Ingemann and Yadav (1978 : 5) thereby conclude that "the timing which is important to production of aspiration is not voice onset but moment of maximum glottal width. The voicing lag is a natural result of this timing. We believe that this aspect of timing is an integral part of the description of aspiration."

In line with this view, they accept the feature [Spread Glottis] proposed by Halle and Stevens (1971) to indicate spreading or widening of the glottal opening which inhibits vocal cord vibration and increases airflow. This is precisely the condition for the state of voicelessness and specially with aspiration of consonants. It follows from this that aspiration or breathiness is a result of combined activities associated with subglottal pressure, laryngeal adjustment and the movement of the supra-glottal muscles which control the width of the pharynx. These functions are clearly reflected in the three features [HSP], [Spread Glottis] and [Tense], although for our present analysis the feature [Spread Glottis] may be dropped on phonological grounds rather than as a rejection of a valid phonetic fact. This would allow us to represent aspirated and non-aspirated (as well as breathy and non-breathy) consonants in the following manner:

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<tbody>
<tr>
<td>HSP</td>
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This situation revealed here appears rather simplistic whereas in actual fact the rate of airflow and the degree of pressure may differ markedly for voiced and voiceless consonants. The feature [HSP] by itself therefore does not reflect this variation in muscular activities in the subglottal or laryngeal areas.

CH (326 n.) quoting Lisker (1963 : 382)⁸ state that "the rate of pressure build-up is significantly slower for voiced stops than for voiceless." This would lend support to the view that voiced stops (which are non-tense) would allow the cavity to expand after the closure phase, resulting in a slowing down of the pressure build-up inside the cavity. In the case of voiceless stops (which are tense) we would expect the pressure build-up after closure to be higher and more rapid than for voiced consonants. In our specification, all cases of aspiration are marked as [+HSP] and the non-aspirated segments as [−HSP] which strictly do not reflect this fact. The feature [Tense] however serves to distinguish the tense consonants from their non-tense counterparts. The essential fact about tense sounds (as implied above) is that they do not have any voicing during the closure phase, while the non-tense (or lax) sounds cause the vocal tract to expand and voicing can occur even during the closure phase. So the feature [HSP] differentiates the aspirated from non-aspirated consonants, and the feature [Tense] is closely linked with the mechanism of voicing.

As suggested earlier, the body of tongue features [High], [Low] and [Back] can be used to specify both vowels and consonants. A move to this effect was initially made by Jakobson, Fant and Halle (1965) when they suggested a feature system in which tongue position in vowels and in consonants was controlled by the same features. To that end, Halle and Stevens (1971) have sought to modify the SPE framework by introducing certain laryngeal features such as [± stiff vocal cords] vs [± slack vocal cords]; and [± spread glottis] vs [± constricted glottis]. But we shall confine ourselves to the features relating to the body of the tongue as conceptualized by CH to differentiate consonants on a purely articulatory basis.
The features [High] and [Back], for example, can be used to differentiate the obstruents /c/ and /k/. The front portion of the tongue moves above the neutral position for the production of /c/, while the back portion of the tongue is raised from its neutral position for the production of /k/. So /c/ is [+ high, – back], and /k/ is [+ high, + back]. It may be noted that the three features can also be used to characterize secondary consonantal articulations such as palatalization, velarization etc. while the consonants neutral with respect to such subsidiary articulations are marked by CH as [+ high, – back] "since such configurations lack a constriction formed by the body of the tongue" (306). Similarly, the feature [High] differentiates the velar nasal /η/ from other nasals in terms of tongue height. For the production of /η/ the back of the tongue is raised above the neutral position and can be assigned the features [+ high, + back] while the other nasals are [- high] since the body of the tongue does not move away from its neutral position. The feature in question can also serve to distinguish the palatal glide /y/ from the labial /w/, the former to be specified as [+ high, – back] and the latter as [+ high, + back].

Further, the co-relation between these features and the cavity features [Anterior] and [Coronal] are made quite explicit in the framework provided by CH (cf. 307). The vowels characterized as [-anterior, -coronal] are related to corresponding consonants with similar features. For example, the high front vowel /i/ and the high back vowel /u/ are related to palatal and velar consonants respectively in terms of the approximate location of tongue constriction. Accordingly, consonants are palatalized in the environment of [+ high, – back] vowels, and labialized in the environment of [+ high, + back] vowels. This makes the connection between palatalization and front vowels and between labialization and back vowels more explicit, something which the previous Jakobsonian framework failed to capture in a formal way.

The feature composition of Newari obstruents and sonorants in terms of primary and secondary articulations may be observed in the following matrix. Table 10 given below however excludes voiced and aspirated consonants which also have similar sets of variants at the systematic phonetic level:

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<th>p</th>
<th>j</th>
<th>pʰ</th>
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<th>l̯</th>
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<tbody>
<tr>
<td>Anterior</td>
<td>+</td>
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</tr>
</tbody>
</table>

|       | m | mʰ | mʷ | n | nʰ | nʷ | l | pʰ | l|h | hʰ | hʷ |
|-------|---|----|----|---|----|----|---|----|----|----|----|
| Anterior | + | + | + | + | + | + | + | + | + | - | + |
| Coronal  | - | - | - | - | - | - | - | - | - | - | - |
| High     | - | + | + | + | + | + | + | + | - | - | + |
| Low      | - | - | - | - | - | - | - | - | - | - | - |
| Back     | - | - | - | + | + | + | + | - | - | - | - |
| Round    | - | - | - | + | + | - | + | - | + | - | - |

Notice that the body of the tongue features [High, Back] and lip feature [Round] are involved in the secondary articulations of palatalization and labialization which in Newari involve a contrast for the glide phonemes /y/ and /w/ with their absence following a consonant, stop or affricate, and preceding a low front vowel. This can be seen in the following illustrative forms:

(5) /paa/ [paː] - dries (hab.)
/pyaa/ [plaː] - is wet
/pwaa/ [pʰaː] - stomach
/kaa/ [kaː] - funeral horn; takes (hab.)
/kyaa/ [kʰaː] - expression of annoyance
/kwaːa/ [kʰaː] - cheats (hab.)
/laa/ [laː] - saliva; have time
/lyaa/ [laː] - account
/lwaa/ [lʰaː] - fight (hab.)
/caa/ [ts aː] - feels (hab.)
/cyaːa/ [tsaː] - burns (hab.)
[ts\'wə:] - kicks (hab.)
[də] - boiled rice
[də] - work
[dz\'wə:] - a pair of

For palatalized consonants the body of the tongue is raised [+ high] at the palatal region [− back]; for velar consonants it is raised [+ high] at the velar region [+back]; whereas the labialized consonants are simultaneously velarized [+high] with the tongue retracted [+back] and the lips rounded [+round]. CH (p. 308) note that when labials and dentals are palatalized they preserve their original places of articulation and a secondary palatalization is superimposed on them. On the other hand, when velars are palatalized they undergo a shift in place of articulation and become palatals. They observe that "in the revised framework these two superficially distinct processes are shown to be a result of the same change, that is, [+back] to [− back]". These changes are nicely captured in the feature system presented above in Table 10 for this class of consonants.

In order to be able to differentiate nasals and laterals, it is necessary to introduce the features [Nasal] and [Laterality]. We do not however need a separate feature to distinguish /r/ and /l/ since /l/ can be specified as [+lateral] and /r/ as [− lateral]. One final feature required in our system is the feature [Voice] which differentiates voiced sounds from voiceless ones. The voiced sounds obviously are [+voice] and the voiceless sounds are [− voice]. However while the feature [Voice] occurs with all types of segments, it is redundant for certain classes of sounds. The vowels and sonorants normally are not distinguished by the feature [voice], so that it is very rare for a language to have a contrast between voiced and voiceless vowels, voiced and voiceless nasals or liquids. Phonetically, different sounds may manifest perceptually well defined voicing differences. The mechanism of voicing, as noted earlier, is closely related to tenseness in supraglottal muscles, constriction in the glottis and subglottal pressure. These in turn determine the timing of voicing, i.e. whether voicing leads, coincides with or lags behind the release of a particular stricture. The co-relation involved in these processes is summarized by CH in the form of a table (328), but we refrain from elaborating on this point here. One fact however is clear that voicing contrast in consonants is often accompanied by a difference in tenseness, so that for our present purpose the features [Tense] and [Voice] may be regarded as mutually exclusive. We thus propose not to use [Voice] as a classificatory feature in the analysis since [+voice] may have ambiguous implications in Newari phonology. The feature [+voice] covers two phonation types, namely voicing and breathiness, so that /b/, /d/, /g/, /m/ etc. on the one hand, and /bh/, /dh/, /gh/, /m/ on the other, would both be specified as [+voice]. Phonetically, voicing and breathiness are as distinct as voicing and voicelessness (see also Ladefoged, 1971: 7-22). Suffice it to say then that the feature system we have adopted for Newari is intended for use primarily at the classificatory or systematic phonemic level, i.e. to show binary opposition, whereas at the systematic phonetic level they may be far more complex than the present analysis is capable of handling.

4. Feature Hierarchy and Segment Structure Rules

A tree diagram for the feature system as a whole can be constructed to check the strict binarity of the analysis proposed for Newari consonants. Such a tree structure as originally introduced by Halle (1959) lists all the consonants at the top of the tree, and then divided into two groups on the basis of ‘plus’ and ‘minus’ features. Each node in the tree is further sub-divided according to the presence or absence of certain features. Each node in this tree is developed independently of other nodes in either group. As can be seen in the tree presented below, the branching process results in leaving us with one phoneme for each node, and this indicates the minimum binary feature specification for each phoneme in the tree. The tree we have drawn is a modified version of the one given by Halle (1951) and later by Harms (1968), and serves to illustrate the strict binarity of the given distinctive feature analysis. The question that we can ask at this point is: Will the tree be symmetrical or will it indicate that too many or irrelevant specifications have been made? Note that symmetry is desired in such a tree simply because it reduces the
number of features and coefficients required for the minimum specification. If any revision in the analysis is required, the tree diagram may well point this out:

(6)  (a) SEGMENTS
      (+sonorant)  (-sonorant)
        (+syllabic) (-syllabic)
          (+cons)  (-cons)
          m, mh, n, nh, n, w, y
          i, i:, e, e:
          u, u:, o, o:
          a, a:, ã, ã:
          æ, æ:
(a) Vowels (b) Liquids & Nasals (c) Glides (d) Obstruents

(b) LIQUIDS & NASALS
      (+nasal)  (-nasal)
        (+anterior) (-anterior)
          [+HSP]  [-HSP]
          [+coronal]  [-coronal]
            n, nh
            m, mh
            (+HSP)  [-HSP]
              nh  n
            (+HSP)  [-HSP]
              mh  m

(c) GLIDES
      (+back)  (+back)
        (y)  (w)

(d) OBSTRUENTS
      (+continuant)  (-continuant)
        (+tense)  (-tense)
          [+flap]  [-flap]
            (s)  (h)
            (r, rh)
          (+del. release)  [-del. release]
            (+tense)  (-tense)
              [+HSP]  [-HSP]
                (ch)  (c)
                (+HSP)  [-HSP]
                  (j)  (jh)
                  (j)

STOPS
      [+anterior]  [-anterior]
        [+coronal]  [-coronal]
          [+tense]  [-tense]
            (+HSP)  [-HSP]
              (+HSP)  [-HSP]
                (p)  (ph)
                (b)  (bh)
                (t)  (th)
                (d)  (dh)

[56]
In Halle's terminology, these segments are called 'fully specified morphemes', but we have preferred to call them systematic phonemes having distinctive (non-redundant) feature values. The branching diagrams we have constructed to represent this system show a hierarchical distribution of non-redundant features which specify each member of a pair of segments as [+F] and the other as [−F]. We have also assumed that in this hierarchy the features at the higher nodes such as [Consonantal], [Sonorant] etc are more basic than the features at the lower nodes such as [HSP] or [Tense]. Hence the tree presented in (6) above reveals this hierarchy by maintaining the order of feature splits uniform, and by preserving natural classes as far down in the tree as possible.

This practice of using branching diagrams to represent the segments of a language has, however, been challenged by several writers, notably Stanley (1967:408) who, among other things, claim that the notion of distinguishability versus distinctness of segments is obscured in a branching diagram. He states that "distinctness is only one of the possible formal requirements for guaranteeing that the segments are all kept apart, i. e. are all distinguishable". The second and a more important criticism made by Stanley is that the hierarchy of features as represented in a branching diagram is bound to be arbitrary, i. e. "an attempt to capture this hierarchy in a branching diagram seems somewhat strange in light of the fact that there may be considerable freedom in the way this branching diagram is constructed for a given set of systematic phonemes; a different choice of redundant feature values in this set will lead to a different branching diagram and thus to a different hierarchy of features" (408). This in effect means that the relation between redundant and non-redundant features cannot be expressed clearly in terms of a branching diagram.

While we cannot dispute the validity of Stanley's claim, it is not clear at this point what formal property of features are relevant and how they are to be determined to arrive at a correct hierarchy of features. We could in this respect suggest that as long as we have the major classes, i. e. Vowels, Glides, Liquids, Nasals and Obstruents, a tree structure such as (6) can still give us adequate information about their feature specifications. Notice that while the precise form of that tree may be arbitrary, every other tree that yields the same classes by means of the same features will be isometric (formally equivalent) to it. Thus the permutation of the nodes yields an equivalent tree, since it has no effect upon the corresponding matrix. The matrix therefore is more basic because it summarizes the feature specifications required for all possible permutations of the tree. So what may be a redundant feature specification in one tree will need to be specified as non-redundant for another permutation of the tree. Stanley's suggestion, on the other hand, points to the necessity of stating (the formal property of features) "in terms of the different ways in which different features behave in the P-rules or in the MS rules, which points in an unambiguous way to the existence of a specific hierarchy" (Stanley, 1967: 408).

Consider for example the following segment structure rule in Newari:

(7) [−sonorant] → [+−HSP] [+flap]

This rule states that an obstruent becomes a non-lateral liquid in a certain environment. The features [+−HSP], [+flap] are therefore redundant and can be predicted by the context in which the rule operates. We thus have a case of phonological redundancy stated in terms of MS-rule which predicts redundancies before the application of P-rules. MS-rules therefore are blank-filling rules (with '+' or '−' entries) whereas P-rules are feature-changing rules which apply in terms of local constraints such as the following:

(8) (a) [−sonorant] → [+−HSP] [+flap] /v/ 

(b) [−sonorant] → [−sonorant] / elsewhere
It thus seems that the features in a classificatory matrix will have empty cells which no redundancy rule can fill with a plus or minus value. Halle (1959: 30, as reported by Wilson, 1966) provides a generalization that "certain features are non-phonemic because they can be predicted from some other features in the same segment." The crucial question then is whether a feature specification is distinctive for all occurrences of a phoneme or distinctive only in a particular environment. Our rules clearly imply that [-lateral] segments are distinct from laterals, glides and other consonants, but the distinction is neutralized in a specific environment. This introduces the notion of 'archiphoneme' which, it is claimed, cannot be formalized in a branching diagram. In a sense, the distinctness condition is required mainly to prevent the improper use of blanks, as can be seen in the following two MS-rules which illustrate sequential constraints in Newari:

\[
\begin{array}{c}
\text{Consonantal} \\
+ \text{consonantal} \\
- \text{vocalic}
\end{array}
\quad
\begin{array}{c}
\text{Consonantal} \\
- \text{consonantal} \\
+ \text{vocalic}
\end{array}
\]

Apart from the other features not given here, we can see that /w/, /l/, /y/ and /a/ differ only in the feature [Vocalic]; while /w/ and /y/ are similar in feature values. Clearly we are not using enough information to keep the segments apart, as the two matrices in (10) are not distinct. So to maintain distinctness we need to fill in the correct values for the given features and to introduce new features as in the following matrices:

\[
\begin{array}{c|c|c|c}
\text{Consonantal} & \text{Vocalic} & \text{High} & \text{Back} \\
\hline
+ & - & - & + \\
- & + & + & - \\
- & + & + & + \\
- & - & + & + \\
\end{array}
\]

These examples seem to indicate that MS-rules cannot prevent the improper use of blanks, and statements about phonological redundancy are closely related to the sequential constraints in the occurrent morphemes of Newari. This lead Stanley (421) to reject both "the distinctness condition and the stronger well-formedness condition as being inadequate devices for preventing the improper use of blanks in the MS-rules." Stanley thus argues that for a grammar to be adequate, it must meet the 'true generalization condition' about the fully specified systematic phonemic matrices of the language. The true generalization condition therefore requires that MS-rules which are redundancy rules be kept distinct from P-rules which we said are feature-changing rules. Contrary to this requirement, the natural generative phonologists question "if the distinction between MS-conditions and P-rules is empirically motivated." Since the theory of Natural Generative Phonology does not recognize separation of levels of
representation, it is claimed that "the differentiation between constraints at the systematic phonemic level and the surface phonetic level is difficult to enforce on a principled basis and brings contradictory results." (Hooper, 1976: 181).

Shibatani (1973: 87) on the other hand, advocates "explicitly formulated surface phonetic constraints (SPC's) that state distributional constraints of segments and features at the phonetic level." In other words, the possible and impossible feature specifications at the phonetic level represent "true generalization about the phonetic pattern of a language." For example, given our position that breathy and aspirated consonants are unit phonemes rather than clusters in Newari, the phoneme /h/ cannot follow a consonant within a syllable, and is thus restricted to the syllable-initial position where it functions as a fricative rather than a glide. Again, given the position that a consonant followed by a glide is a cluster rather than a unit phoneme, then there is no restriction on the initial consonant that clusters with glide. A CCC cluster of any kind, however, cannot occur within the syllable. The clustering behaviour of Newari consonants can thus be stated as 'if-then' constraints like:

\[
\begin{align*}
\text{(a) } & \text{If (C) : } + C \rightarrow C \ldots \\
& \text{Then (C) : } [-\text{continuant}] \\
\text{(b) } & \text{If (C) : } $ C \rightarrow C \rightarrow C \ldots $ \\
& \text{Then (C) : } [+\text{vocalic}] \\
\end{align*}
\]

(Where $ = $ syllable boundary.)

We said above that the main function of MS-rules or Stanley's MS-conditions is to state the constraints on combination of features at the systematic phonemic level. Shibatani's SPC's also play a similar rule but apply at the phonetic level only. That is, SPC's, may coincide with MSC's but they operate at different levels. Postal (1968: 214) however seem to require that well-formed phonetic representations be governed by P-rules. On the other hand, McCawley (1970, as reported by Shibatani, p. 92) note that "anyone who argues that phonetic constraints are the result of MSC's and P-rules is putting the cart before the horse." This obviously implies that MSC's and P-rules are logically based on SPC's and not the other way round.

Such arguments lead us to the conclusion that there are yet many unresolved questions in distinctive feature theory. The important issue lies in the relationship between phonetic features and phonological features in various linguistic ways. In other words, phonetic features can be "phonologized" by individual languages, (Hyman, 1975: 58). The choice of features therefore will be based on phonological contrasts, so that phonetic features may or may not correspond to phonological features.

Table 11. Distinctive Feature Representation of Newari Consonants

| Feature | p | ph | b | h | t | th | d | dh | k | kk | g | gh | c | ch | j | bh | m | mh | n | nh | l | lth | s | w | y | r | h |
|---------|---|----|---|----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|
|sonant  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|coronal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|velar   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|nasal   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|lateral | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|labial  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|back    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|fricative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

Acknowledgement

This study forms a part of Chapter 3 of Kansakar (1979). I am indebted to Austin Hale for the many valuable comments and suggestions on the initial draft of this paper.

Notes

1. Reporting on the findings of Dhala and Dhala, "The Problem of aspiration in Hindi Phonetics" (1972), Yadav (1976: 79) states that "the necessary correlate of aspiration is not heightened subglottal pressure as claimed by Chomsky and
Halle; instead an invariable drop is found to occur immediately after the release of the closure in both the aspirates and breathy voiced stops.

2. The glottal fricative /h/ has been included as an obstruct rather than a glide since our subsequent analysis shows that /h/ can only occupy the initial position within a syllable; and can be followed by /y/ and /w/. If breathy and aspirated consonants are treated as clusters rather than as unit phonemes (an approach we have not adopted here), /h/ could possibly be viewed as a glide.

3. The parenthesized segments in the consonant chart have a marginal status: the non-laterals [r] and [rh] alternate freely with [d] and [dh] especially in word-medial or morpheme-final positions. Note also that /r/ and /rh/ have been included as obstruents, since /r/ is a flap in Newari and not a liquid like the English retroflex /r/. The same would be true for the breathy variant /rh/. The velar [ŋ] on the other hand occurs only where a nasal /n/ has assimilated to a following velar stop, and thus is a variant of /n/ rather than a contrastive phoneme. It may be noted however that in the Bhaktapur dialect the velar nasal occurs in syllable-initial position, corresponding to certain instances of /ny-/ in Kathmandu, e.g. /nya/ 'fish', /nya-mha/ 'five persons' etc in Kathmandu are realized in Bhaktapur speech as [ŋa] and [ŋamha] respectively.

4. The diagram here shows eight vowel qualities only, but all Newari vowels (except /e/ and /æ/ which have no short counterparts) have long and short as well as oral and nasal counterparts. The complex nuclei which are clearly diphthongal, are not included in the present analysis. The arrows marked to the left (front) and right (mid) of the low vowel /a/ indicate the relatively large range of variation. The broken arrow pointing downwards to the right of /a/ indicates that it ranges from mid-central to low back position. The analysis of Friedman et al. (1983) reveals that in most environments /a/ is never fully as high as the norm for /e/ or /o/. The variants of /a/ as indicated in our chart also indicates some form of lip rounding under certain conditioning environments.

5. Ladefoged (1971: 43, 67) has however argued that vowels in particular need to have non-binary features or what he calls 'multi-valued scalar features' which specify the vowel continuum. So the setting up of high and low as separate features becomes "a maneuver for forcing a multi-valued feature into a binary straitjacket". This view in a way reflects Trubetzkoy's (1939/69) attempt to specify different vowel height, e.g. i-e-e-æ-a, as one of gradual opposition rather than binary in character.

6. Note that under tense sounds CH include both vowels and consonants so that, as in the case of vowels, 'tense and lax consonants also involve greater versus a lesser articulatory effort and duration' (325). We have used this feature in our subsequent analysis of Newari consonants.

7. Yadav (1976: 85), following Dhala and Dhala (1972), has preferred to use 'Reduced Glottal Resistance after Release' (RGGR) or 'Distinctive Release' to characterize Maithili aspirated consonants.


REFERENCES


Referential Management in the Bhaktapur Newari Dialect
Narrative Discourse

Daya R. Shakya*

1. Introduction

This paper describes how a speaker selects referents in Newari. I assume that in a particular circumstance the speaker chooses a certain linguistic form in order to code the referent which is in the immediate mental representation of the speaker. Information available in a speaker's immediate mental representation is communicated to the hearer by referential management. Referential management is a process by which the nominal information is encoded in connective discourse, and the referents are made available to the hearer by using the linguistic devices such as NP, Pron and zero anaphora. This paper focuses on the referential management of participants in the given text.

In discussions of referential management, a distinction has been made between two terms: given vs new. First, if a speaker (S) assumes that a hearer (H) can identify a referent then it is known as given information. Secondly, if the (S) assumes that the (H) can't identify the referent, then it is known as new information. I will use these definitions for this paper.

Chafe (1986) notes that the names given for the linguistic forms in a discourse production should be based on cognitive processes. In this regard, he uses the terms "already active" and "previously inactive" as alternatives to the "given" and "new information". In addition, Prince (1979) divides new into two categories: first, brand new, something which has not been

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introduced previously in H's mind and second, unused, something which is already introduced, and is known by the H, but, not available immediately.

In this paper I will demonstrate how 4 coding devices are used in Newari. First, a full NP is used for establishing a new information. Second, the Det+NP is used when a referent has been introduced in previous clauses but needs to be distinguished from another referent for avoiding ambiguity. Third, the coding device Pro. is used when the introduced referent is not ambiguous from the referent of the previous clause. The last type of coding device(O) zero anaphora is used when the introduced referent functions as the same subject of a preceding clause and the agent or participant of the same episode under the sequence of the same events. I believe that this assumption of selecting the coding devices used in the Bhaktapur dialect also reflects the coding system in Kathmandu Newari.

2. Methodology

2.1 Data Collection Procedure

The data presented in this paper was transcribed from a recorded narrative folk tale told by a male speaker of the Bhaktapur Newari dialect, living in the Bhaktapur City, Kathmandu, Nepal. The text of the story is given in the Appendix I with an English summary of the story at the end.

2.2 Method of Transcription

The transcription method used in this paper is different from the one which has been presented by Ochs (1979). Her method of presenting the data in columns does not seem to be convenient for other than the language she used in her paper. Despite what she has noted, this paper does not provide information on the speaker's non-verbal behavior and prosodic marks. I consider these two phenomena of discourse are not relevant for this study.

The data have been parsed into grammatical categories. Every utterance is given with a gloss of each morpheme and the nearest translation of each clause. I have adopted the serial lay out system (left to right) as in orthography. Thus, each utterance consists of at least three lines. The notational representation [///] placed at the end of each utterance, indicates the main clause boundary. The episode boundary has been shown with [ | -- | ]

2.3. Coding Categories

In Newari, the referents are coded with four types of devices as follows:

2.3.1 Numerals - Classifier NP or NP

A referent which is introduced in a discourse as brand new information or first mention is coded either with a noun phrase (NP) consisting of lexical noun, a numeral and a classifier or simply with the lexical noun by itself. Two examples are given below, sentence (1) with a numeral and a classifier, and (2) with NP by itself:

1. cha-mha manu wal-a 2. kune manu wal-a
   one -Cl man come-Pst
   A man came.

A man came down.

2.3.2 Determiner and NP (Det + NP)

The speaker keeps track of referents which have already been introduced in previous clauses by using different coding devices. If a current clause contains more than one referent, it is necessary to code the tokens unambiguously. So, the speaker uses a demonstrative /wa/ irrespective of animate, inanimate, location and abstract in Newari, and lexical noun (NP) to code the specific referent. If the demonstrative is not used, the coding indicates a different referent. In order to refer to a specific referent the determiner is required with the NP for rementioning of the same referent. If there is another NP, it would be confusing to determine which referent the speaker is referring to. So, the use of the demonstrative /wa/ emphasizes that the referent has already been mentioned. For example, in sentences (3-5), (4) refers to the same referent which was introduced in sentence (3). Whereas in (5) manu refers to another new referent.

3. mbhia: cha-ma manu: -na biha yat-a
   yesterday one -Cl man ERG marriage do-Pst
   A man got married yesterday.

4. wa manu wal-a 5. manu wal-a
   DEM man come-Pst man come-Pst
   That man came.
   man came.
In addition, this device may also occur to activate the same referent by using a relative clause in between the Demonstrative and the NP as exemplified below:

6. \text{wa } ka [mhigə: \text{ wa}-mha] \text{ manu } wan-a
   DEM PART Yesterday come-Past-REL man go-Pst
   The man [who came yesterday] went.

2.3.3 Lexical Pronoun (Pro):

The third type of coding device used in Newari is the lexical pronoun (Pro). This is used only if the referent is already introduced in one or two previous clauses in the discourse. If the referent is unambiguous then it refers only to the same referent mentioned in previous clauses. The Pro is used irrespective of gender in Newari. For example, in sentence (7), the third person singular pronoun \text{wa} could refer to male, female, animal or insect who (/which) ever is known to the hearer from a previous clause.

7. \text{wa } wal-a
   3sg come-Pst
   s/he/it came

2.3.4 0 Anaphora

The last type of coding used in the given data is zero anaphora (0). This coding device is used when the referent is already mentioned in one or two most recent clauses. The referent undoubtedly refers to the same one mentioned in a preceding clause and the subject of the verb in the clause is the same. The clause does not require any referent, but is rather coded with 0 anaphora. For example, two sentences (8) and (9) are given below. Sentence (8) has a subject cha-ma manu which is also a subject of the sentence (9), coded with the zero (0) anaphora:

8. cha-ma manu waI-a
   one-Cl man come-Pst
   A man came.

9. ale mech-e phyt-e-ul-a
   and then chair-LOC sit-stem-Pst
   And then (0) sat down in a chair.

In summary, the tokens of the discourse are coded with four types. They are distinct in syntactic structure. They are chosen according to the speaker’s representation of the referents under the circumstances of activation of referents in a discourse.

2.4 Text Count

In order to test the accuracy of the description in 2.3 to 2.3 and 4 above, I have used text counting method of Givon (1983; 1990).

2.4.1 Referential Distance (RD)

Givon’s (1983) text counting measurement indentifies the current mention of a participant and counts the distance to the previous mention in the preceding clauses. For example, if the referent is used consecutively, the distance is counted as 1 (one). If the referent is used for the first time in the discourse, I used Givon’s notion of maximal referential distance of 20 (clauses). A clause is defined as a verb plus core arguments. In this analysis, infinitival and relative clauses are not counted as distinct clauses, because they are embedded within a main clause. However, a serial clause which has a non-finite (Genetti, 1986, Hargreaves, 1986) and a temporal inflection is counted as a clause in this paper.

3 Results

The mean RD value of each coding device used in the text is given in table 1:

<table>
<thead>
<tr>
<th>Coding Devices</th>
<th># of Cl</th>
<th>RD value</th>
<th>Mean RD</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP</td>
<td>19</td>
<td>314</td>
<td>16.52</td>
</tr>
<tr>
<td>Det NP</td>
<td>19</td>
<td>43</td>
<td>2.26</td>
</tr>
<tr>
<td>Pro</td>
<td>14</td>
<td>16</td>
<td>1.14</td>
</tr>
<tr>
<td>Zero</td>
<td>18</td>
<td>22</td>
<td>1.22</td>
</tr>
</tbody>
</table>

The table shows that the mean RD for NP is much higher (16.52) than any of the other types of coding devices. The other three coding devices have lesser values. Among these the Det + NP has a higher value (2.26) than the other two. The table also shows that the (0) zero anaphora and Pro have a very small difference in RD value.
In the diagram below, the vertical axis shows the RD value, whereas the horizontal axis shows the choices of the coding devices: The higher RD value correlates with the brand new referent as the term is used by Prince (1979), and the low value correlates with the more predictable referents. Givon's text counting method significantly shows the selection between NP and other three devices; however, the method does not clearly distinguish Det +NP, Pro and 0 anaphora. So, the problem I see here is that the differences between 'Pro' and '0' is very small. The data do not provide enough evidence to make a decision of selection between Pro and 0 Anaphora. Givon's text counting method is not enough to determine the selection of each code used in Newari. There may be other factors involved in this case.

4. Discussion of the Devices used in the Data

We know from the above table that in the given data four coding devices are used. In using these devices the narrator believes that the referent is to be activated in the hearer's mental representation. In this section I will demonstrate how these coding devices are selected in the given text.

4.1 NP Vs Det + NP

The narrator uses the lexical NP to indicate brand new referent in the discourse. The first introduced NP may or may not consist of other constituents such as numeral and classifier. The examples given below contain first mention new referents in the discourse: /buri/ 'old woman', /khyA/ 'goblin', /ga-la/ 'goiter' and /mari/ 'bread', as follows:

(10) Eps: 3 Cl: 6 Text
thwa e kram-e cha-nu
DEMPH way- LOC one day
tACha ma buri cha-nu tACha ma tAPaka-nine
wa-mA kha
One-Cl old woman one-day one Cl far ADV-PP
come-NOM Cop
Once there was an old woman who had come a long way,

(11) Eps: 3 Cl: 8 Text:
wa buri-yA dhasA kakut-i:
Det old woman-GEN PART neck-LOC
gala: swa--u da-u juya conA //
goiter three-Cl COP-NOM become stay-PD
In the neck of that old woman, there were three goiters.

(12) Eps: 4 Cl
wa e maru satal-e cha-mA khyA wal-A //
DEMPH MS-LOC one-Cl goblin come-Pst
A goblin came into that Marusatal.

(13) Eps: 6 Cl: 23 Text:
ale wa buri-yA nhin-e: bhusyA-
and then Det old woman-GEN day-LOC husk
himu-yA mAri pye-pA jwa--u- kha: //
husk-GEN cake four-Cl take with-NOM COP
That woman had brought four rice husk cakes for lunch.

In order to distinguish between brand new and unused referents the determiner /wa/ is used with NP. If the speaker does not use the determiner, the hearer assumes that s/he has introduced another new referent. So, in order to refer to the same referent introduced in previous clauses and to carry the identification of
the same referent, the determiner /wa/ is added to the NP as the
new coding device in the discourse production. For example, in
sentence (14) given below, the Det + NP is used for 'goiter' which
was introduced in the preceding clause (Cl # 8 in the text).

(14) Eps: 3 Cl: 9 Text:
ale wa ga-la swa-u da-u-yA karana-e
and then 3sg goiter three Cl COP-NOM-gen cause-LOC
sAp man kwatuya co-ukha: //
INTEN mind emberezing stay-NOM COP
Because of these three goiters, she was unhappy.

4.2 Det + NP Vs Pro
In terms of selecting the Det + NP Vs Pro, the speaker
determines whether the referents used in the clauses are
ambiguous or not. In the examples (15-16) given below, sentence
(15) has a referent /khyA/ 'goblin', whereas in (16) Det + NP the
referent is /buri/ 'old woman'. Both of these clauses are in serial
construction. If the narrator had used only Pro in (16), it would
have referred to 'goblin' rather than to the 'old woman'.

(15) Eps: 5 Cl: 17 Text:
thanka: wa-bale
arrive- NF come-TEMP

(16) Eps: 5 Cl: 18 Text:
wa buri dya~ cwa- thAe theaka swal-a //
Det woman sleep stay place like this look-PD
When he (goblin) arrived, he looked at the place
where the woman was sleeping.

In contrast, in the examples (17) and (18), if the narrator had
not used the Det + NP for 'goiter', in 18 (i.e. Cl# 22 in the text)
the use of Pro could have been confused with /tisA/ 'ornament'
which was mentioned in the preceding clause (i.e. Cl# 21 in the
text). Thus the selection of Det + NP and Pro is a matter of
avoiding the ambiguity.

(17) Eps: 5 Cl: 21 Text:
tisA the~ ju: cwa~ guli-
ornament EVID become stay because

(18) Eps: 5 Cl: 22 Text:
wAe loba~ wa~ wa ga-la: swa~ga:
3sg GEN greed 3sg ERG DEM goiter three-Cl
tha: gu sakti- i~ kakuti: tal-A //
SELF-GEN power-INST neck-LOC put-PD
Because of his greed, he took the goiters and put them in
his neck.

4.3.0 anaphora Vs Pro
The last type of referent used in the given text is zero
anaphora. For example, in the sentences (19) and (20) below both
are from the same episode. Sentence (19) consists of Det +NP /wa
khyA/ 'that goblin' whereas in (20) the same referent is coded
with a 0 anaphora. The subject NP/wa khyA/ of sentence (19)
also functions as the subject of (20) in which the subject referent is
coded with 0. This refers to the Equi subject deletion in the
syntactic structure (Givon, 1984). When the speaker believes
that the referent has been already activated and is still
available in the hearer's memory file (Dubois, 1980), the 0 is
used. Since the referent is already in the file, s/he does not have
to repeat the subject. So, it gets deleted:

(19) Eps: 4 Cl: 15 Text:
uke~ wa khyA gurra tula
therefore DEM goblin ADV roll-Pst

(20) Eps: 4 Cl: 16 Text:
anA wa buri dya~ cwa~
there 3sg woman sleep stay place-LOC arrive come-Pst
thA-e tha~ka: wa1A //
place arrive come-Pst
He rolled down and (he) came to the place where that
woman was sleeping.
In summary, the lexical NP is used for establishing a new referent in a discourse. The Det+NP codes a previously mentioned and distinguishes ambiguous referents introduced before. The usage of the lexical pronoun (Pro) depends upon unambiguous referents mentioned in previous clause, whereas the selection of 0 anaphora usually codes the same subject of the previous clause.

5. Conclusion

This paper examined the issues of selecting the coding referents in a narrative discourse based on a Bhaktapur dialect Newari text. It turns out that in order to establish a referent, the lexical NP is used. Once the referent is introduced, the speaker chooses one of the three coding devices: Det+NP, Pro or 0 anaphora. Selection of these forms is based on the speaker’s degree of activating the referent in the syntactic and pragmatic structure of discourse. The measurement of referential distance of these devices shows that a lexical NP has the greatest value, while the others have minimal values. Although the RD value does not present a clear pattern for the Pro and 0, it is consistent with the result of Givon (1983).

Once a referent is established, the speaker chooses the Det+NP in order to refer to the same referent. If the referent is unambiguous, the Pro is used in the clause. If a certain referent grammatically functions as the subject of two or more sequential clauses, the /0/ is used.

Finally, since this paper is based on one narrative discourse, the result found here may vary from conclusions drawn from the other types of data. However, the result drawn in this paper could be considered as a general tendency of selecting codings in Newari. In order to establish an overall hypothesis, more data need to be examined from various Newari dialects. This would be another step in the investigation of referential management in the study of Newari discourse.

Notes
1. I thank Prof. R. Tomlin and Prof. David Hargreaves for their comments and suggestions on the earlier version of this paper.

My thank also goes to Mr. Ratna Sunder Shukya for his assistance in recording the discourse data used in this paper.

2. Newari, a Tibeto-Burman language spoken in Nepal, has SOV word order. The indirect object precedes the direct object. The case markers are obligatory in the nominal constituents. Thus, the word order is not as rigid as in English. The tense and person references are coded in the verb phrase, with conjunct and disjunct variation, for first and non-first person, and past and non-past distinctions for tense. The subordinate clause is embedded within the main clause.

The rationale for selecting the data from Bhaktapur dialect is to look at the old and conservative dialect of Newari. A lexico-statistic study of this dialect (Tamot 1983) shows historical evidence of old and new forms of Newari dialects. Beside this we also find the morphosyntactic analysis of this dialect (Joshi 1985, Sharma 1978). The analysis undertaken in this paper is the preliminary step in the examination of the Bhaktapur Newari dialect discourse.

3. These data were collected during my field work in spring 1990.

4. The episode is not related to the analysis. It is simply used in order to show a clear scenario of events for readers.

5. The usage of numeral ‘one’ with the first mention of a referent can be considered an indefinite referent as Kim (1989) notes in terms of Shigatse Tibetan. The difference between numeral one NP adjust NP is not considered here.

6. The lexical pronoun /wa/ is used to refer to a distal referent, while the proximate is coded with /wa/ (not used in this text except in clause 6, not relevant in the discussion).

7. The decision of the occurrence of numeral and classifier is based on the coding of definite and indefinite number in the referents. If the NP is coded with a definite number, the numeral and classifier are obligatory; if it is an indefinite number, the referent is coded either with simply NP or with plural marker such as khyA-ta and tisA in clause # 14 and 20.
8. In this case, the pronominal me-mA or me-u is to be used when different referent of the same type is introduced in the discourse. This is not available in the given discourse.

References


Appendix 1

Text: A story of the marusata: goblin

E1

1. nhApAyA maru sata: da- bale / early - GEN MS exist - TEMP
   Once upon a time there was a rest house named Marusatal.

2. gable rise- wa da-u kha //
   when PP DEM exist - NOM COP
   For as long as it has been in existence.

3. able rise- su- manuy:ya byApAr wAn-i bale /
   since then PP who man-GEN business go-NPD TEMP
   Business people travel by when ever

4. maru satale cwA-n-i //
   MS stay-NPD
   They would stay in that rest house.

E2

5. wa maru sata: wa maru satale
   DEM MS DEM MS
   That was Marusatal in that Marusatal.

   ca-chi bite-yA- /
   night - one spend - do - NF
   Marusatal was a place for spending the night

   dyA-u thAe kha ni //
   sleep-NOM place COP PART

E3

6. thwa e kram-e cha-nu
   DEM EMPH way-LOC one day
   This is the way it used to happen

   cha-ma buri
   one-Cl old woman
   an old woman

79
wa na wa e marusatalale dyana //
3sg also DEM EMPH MS sleep go-PD
She went to stay in that marusatala

wa buri-ya dhasA kakut:i-
DEM old woman-GEN COMP neck-LOC
In the neck of that old woman
ga-la: swa--u da-u juya con-A //
goiter three-CI COP-NOM become stay-PD
there were three goiters

ale wa gala wa--u da-u-ya karana-e
and then DEM goiter three-CI COP-NOM GEN cause-LOC
Because of these three goiters
sAp man kwatuya co--u kha: //
INTEND mind embarrassing stay-NOM COP
she was unhappy

ale wa sliu-A miu-mA buri
and then 3sg clay sell-REL woman
She was a clay seller woman (old woman)
che-1yA wan-e ma-kha: //
house return to-INF NEG-see
could not go back home,

u ju: niti-PART become for
wa marusatalae bAs yA-e ta
3sg MS-LOC lodge do -INF-PUR
She had to stay over night in the MS

bAs-yA- cwa- cAn-e chu jul-A //
lodge do stay-INF night LOC what happen-PD
while she was staying there some thing happened during the night.
wa buriy-Ake gu-u da-u
3sg oldwoman-COM which-CL exist-Nom
  ga-la: kha: //
giote COP

wa ga-là wAe-u najara-e
DEM goiter 3sg GEN view-LOC
  In his eyes, the goiters that the woman possessed looked like an ornament.
  tisA the-ju cwan-a //
ornament EVID become stay-PD

TisA the-ju: cwa-guli-
ornament EVID stay because
because it looked like an ornament,

wa-e loba- wa- wa ga-la: swa-ga:
DEM EMPH greedy 3sg ERG DEM goiters three-CL
he was attracted to those goiters.

tha: gu sakti-1- kakuti: tal-A //
SELF-GEN power-INST neck-LOC put-PD
He took them away from her and put them on his neck.

ale wa buri-yA nhin-e: bhusyu-
and then old woman day-LOC husk
That woman had brought four rice husk cakes for lunch.

himu-yAu mArî pye-pA jwA--u-- kha: //
husk-GEN cake four-CL take with-NOM COP

wa mari pye-pA khe Ni-pa nay-A:
DEM cake four-CL among two-CL eat-NF
She had already eaten two of them for lunch and had saved the other two.

NipA kane suthAe-tA dhAka
two-CL tomorrow-LOC morning-PUR COMP
for the next morning

laN-k-A:
remain-Caus-NF
She saved them

tha-u jani: phu-NA YA-
SELF GEN sash pillow do-NF
in her sash which she was using as a pillow.

phu-NA yA ta-u
pillow do keep-NOM
This woman dept the cakes underneath that pillow
ta:le ta wantyau- kha: //
underneath keep? COP

ale wa buri- wa mArî Ni-pA na-
and then DEM woman DEM bread two-CL also
then that woman and the noth the cakes
wa khya-na- gumA
DEM goblin-ERG which REL
that goblin who used to live

marusata: yaa khya kha: //
MS GEN goblin COP
in that rest house took both the cakes and ate them.

kayA: nA-c bil-a //
take-NF eat-INF give-PD
took it and ate it.

ale wa buri-yA nhin-e: bhusyu-
and then old woman day-LOC husk
That woman had brought four rice husk cakes for lunch.

himu-yAu mArî pye-pA jwA--u-- kha: //
husk-GEN cake four-CL take with-NOM COP

wa mari pye-pA khe Ni-pa nay-A:
DEM cake four-CL among two-CL eat-NF
She had already eaten two of them for lunch and had saved the other two.

NipA kane suthAe-tA dhAka
two-CL tomorrow-LOC morning-PUR COMP
for the next morning

laN-k-A:
remain-Caus-NF
She saved them

tha-u jani: phu-NA YA-
SELF GEN sash pillow do-NF
in her sash which she was using as a pillow.

phu-NA yA ta-u
pillow do keep-NOM
This woman dept the cakes underneath that pillow
ta:le ta wantyau- kha: //
underneath keep? COP

ale wa buri- wa mArî Ni-pA na-
and then DEM woman DEM bread two-CL also
then that woman and the noth the cakes
wa khya-na- gumA
DEM goblin-ERG which REL
that goblin who used to live

marusata: yaa khya kha: //
MS GEN goblin COP
in that rest house took both the cakes and ate them.
31. ale Kane khunu
and then tomorrow day
on the next morning,
suthAe jul-a //
morning become-PD

E8

32. wa buri da-bale //
DEM woman get up TEMP
when that woman woke up,

33. tha: yakku yau-the-cwan-a //
SELF much light EVID stay-PD
she felt very light

34. wAe sAphau-the-cwan-a //
3sg-GEN INTEN light EVID stay-PD
She found that her body felt very light

35. chae dhasA
why COMP
uke da-u
3sg-COM COP (exist) -NOM

guu ga-1at
which-NOM goiter-Pl

a ma-re dhuNKal-a //
now NEG-COP finish-PD
because the goiter that she had no longer existed in her neck,

36. wa ma-re dhu-Nu jwA ni-til-
DEM NEG-COP finish-NOM become PUR
so they were not there
wAe AsCArya cAyA:
3sg-GEN surprise feel-NF
She was surprised and also happy.

37. sAthe le le na-tal-a //
with happy happy also feel-PD

38. ale khwa sil dhu-kA
and then face wash finish-ADV
Then, after washing her face,

39. wa-tha-u phwawa-e
3sg-ERG SELF-CI head side-LOC
she started to check the place where she had put her

the dyA-thAe
place sleep place


gu-u phuNA tale
which-CI pillow keep underneath
in order to look for what she had kept underneath the

jaNi: tale tay-A
sash underneath keep-NF

tau mAri Ni-PA sa ne mAni dhayA
keep-NOM bread two-CI CON eat need-NPD say-NF
She was thinking about the two meant for breakfast

mati: tal-A //
mind-LOC keep-PD
kept in mind.

E9

40. mati te sAtha-swa: bale /
mind-LOC keep with look EMP
Suddenly, she looked underneath, and

41. guA tha-ma-tAyA ta-u
which-GEN SELF-ERG keep-NF keep-REL
the cakes which she had left were not there.

mAri na-mA-ru //
bread also NEG-COP

42. ale uki-ya palesA
and then DEM-GEN substitute become stay
There were two golden cakes instead. This also surprised her. She then went back to her village with those two golden cakes.

Appendix II

<table>
<thead>
<tr>
<th>Cls</th>
<th>NP</th>
<th>VP</th>
<th>Coding</th>
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<td>da-bale</td>
<td>NP</td>
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<td>MS</td>
<td>da-u kha</td>
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<td>manu</td>
<td>wani-bale</td>
<td>NP</td>
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<td>cwaA-ni</td>
<td>MS=NP manu=0</td>
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<td>kha ni</td>
<td>Det+NP</td>
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<td>wamA kha</td>
<td>Num-CI NP</td>
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<td>Det+NP, buri +P</td>
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<td>wane makha</td>
<td>buri=Det+NP, che-+NP</td>
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<td>MS</td>
<td>jula</td>
<td>Det+NP</td>
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<td>waA</td>
<td>MS=Det+NP, khyA=Num-CI NP</td>
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<td>khyA, jAdu sakti</td>
<td>daujuyA cwaA</td>
<td>khyA=NP, jAdu sakti=NP</td>
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<td>khyA</td>
<td>gwArA tula</td>
<td>Det+NP</td>
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<td>buri, khyA</td>
<td>tha-ka waA</td>
<td>Det+NP, khyA=0</td>
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<td>buri, khyA</td>
<td>thaeka swala</td>
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<td>kha:</td>
<td>Det+NP, NP Num-CI</td>
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<tr>
<td>26.</td>
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### REFERENTIAL DISTANCE

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<tr>
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**Note:** The columns represent the number of mentions (NP, Det NP, Pro, 0), referents (MS, buri, khyA, etc.), and semantic roles (P, L, etc.).
The Real Interpretation of DHILÎ from the Gopālarājavadamsāvali

Kashinath Tamot*

The Gopālarājavadamsāvali (GV) is the most important and one of the oldest sources of the authentic study of Nepalese History. It is also called Bendall Vamsavali, after the name of Cecil Bendall (1856-1906), a British Sanskritist, who discovered the manuscript in December 1898. Since then many scholars have studied the text until now, but still there is want of plausibility in its interpretation. The most problematic portion is the latter one (fols. 29-63), which is written mostly in Early Classical Newari language. Bendall (1903: 3-4) left it saying "the language is unfortunately old Newari". Petech (1958: 7) lost hope and thought "even Nepalese Pundits are at loss for interpreting this text." He added "as to the Newari portion ... this is a task which must be left to Newari scholars" (1958: 219) Yogi Naraharinath (1959: 26-31) summarised its Sanskrit portion in Nepali and left the Newari portion for futurity. Lately, two Newar scholars Mr. Dhanavajra Vajracharya and Dr. Kamal Prakash Mall (1985) published its facsimile edition with a Roman transliteration, Nepali and English translation and a glossary of Newari words. But this was also not free from serious mistakes. This facsimile edition is very much useful to work on the text. It opened the treasure for general readers from the hold of limited scholars of Nepalese history. The data of the GV were

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1. This paper was presented at the Xllth Annual Conference of LSN, Nov 26-27, 1991.
used by many scholars. Some prominent figures among them are
Historian-Laureate Baburam Acharya (1888-1972), who
confessed that only a few things were understood of it even when
studying for twelve years (1966: 4, Introduction), A group of
scholars of Amendments in History, Historian Dr. Dilli Raman
Regmi, the esteemed Newar scholar Mr. Thakur Lal Manandhar
(1912-1991) and so on.

Here some words with the key word DHÍLÍ are put forward to
interpretate, because the words were either misinterpreted or
untouched. The word DHÍLÍ is studied here linguistically as well
as in the context of history.

Linguistic Study

There is a record in the GV as follows:

    sa 466 māgha śudi 3 tirahutih karaśinhha rājāsana mi
    lhosanatā samtrā gahiṭo DHÍLĪsa turakayāke vamña... (fol.
    46a.4)

Of this sentence Vajracharya (1957), Vajracharya et al.
(1962), Pant and Pant (1972), Vajracharya and Malla (1985) and
others have read 'mithā' to milko , 'dhiřīśa' to dhīlīśa . Some
other scholars have read differently but they do not deserve any
attention. The words samtra and gahiṭo are not interpreted by
anyone until now. With the closed study of Newari Bhujimmola
('fly-headed') script and Early Classical Newari of the text,
the above record was read.

MI LHOŚANATĀ-However this is not Mithā. Mi lho-
has been used three times in the GV. The two uses are as follows.
1. ... tha manmāham mim mi lhosam syāna (439.5) "these
fifive persons were killed plucking their eyes out (or with
hostility)"
2. ... rudramaladevasana sakhu bhālo jovanakam hasyam
śasti yānā kothachamma mi lhosam lā dyamāna (45b.4)
"Rudramalladeva got hold of Sakhu Bha and tortured him in
Kothachem plucking his eyes out (or hostility) and cutting his
hands."

Here in the above record mi lhosanatā seems not to be
"plucked eyes out" but should bear some different meaning. In this
context, I think at this stage that this should be a figuttative
phrase. The meaning may be as follows:

mi lho -sana- tā
eye lift-ing kept
or, eye lifted, that is, had enmity with.

The Classical Newari mi lho- seems to mean literally "eye
pluck out or lift up" and figuratively "have enmity with." Lho-
may have developed as lhoke "pluck out" and lho-ne "lift up" or
"arise" in modern Newari. One possible meaning of mi lhosanatā
is "kept people arise."

SAMTRA GAHĪTO- These words are not explained by any
scholars up to now. There is indication that it should be a
personal name as there is honorific suffix -to (m) annexed to it.
The suffix has been used 50 times in the GV. While listing them
the result comes out as follows:

1. With bhā (ro) "courtier, noble" 20 times
2. With direct names of respected persons 11 times
3. With royal dignitaries rājā (ju) 'king' ?,
   kumara 'prince' 2
4. With government personalities mahāśāmvanta "a great
   vassal" 1, mahāśāha "a chieft minister 4," mulami "a chief
   person" 5, dalavayā "a commanding officer" 2 12 times
5. With socially respected persons upādhyāya 'preceptor' 2,
   yūdhiṣi 'astrologer' 1, and māmaju 'mother' 1 3 times

I am inclined to believe that the suffix -to (m) denotes
'oneself' or it is a reflexive suffix. Now a days it developed as a
reflexive emphatic particle 'tum'.

The morpheme -to (m) is not only used as nominal honorific
suffix, it also used as postposition to denote 'upto' and as past
tense suffix with verbs.
Now, we come to the point that Santra Gahī should be a personal name with or without adjective. Recently I visualised that this could be "Sultan Ghiyas - ud- din." We have record of Arabic word Sultan used in the forms of surailāna, srutāna and suratrāna in the Medieval epigraphy of Nepal. (Tamot, 1990: 17) Santra is one more addition to it, in which original five phonemes s, m, t, r, and a are retained. Gahī is the shortened form of Ghiyas - ud- din, so according to Newari phonology of shortening multisyllabic words into two syllables. The equation of syllabic and phonemic change could be shown as follows:

<table>
<thead>
<tr>
<th>Muslim form</th>
<th>GV form</th>
<th>Phonological phenomena</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghiya</td>
<td>Ga</td>
<td>fricative s aspirated</td>
</tr>
<tr>
<td>-s</td>
<td>h</td>
<td>weak phonemes lost</td>
</tr>
<tr>
<td>ud-din</td>
<td>ī</td>
<td>- ya lost</td>
</tr>
</tbody>
</table>

From the above evidences, we come to know that Sultan Ghiyas-ud-din (AD 1321-1325) was hostile by Harasimhadeva, the king of Tirhuta.

DHILĪSA - Now let us discuss the word dhilīsa. It is explained as 'Delhi' by all scholars so far. Beside this, there is a possibility of another meaning of it. We find it in A Lexicon of Newari drawn from Traditional kośa sources (1987) and concordance file of it drawn from 11 bilingual Amarakoṣas of medieval period ranging from AD 1381 to 1711. The project conducted by Newari Dictionary committee, is at its last stage. The Lexicon is being edited by Mr. Ian Alsop, U.S.A. and by Mr. K. N. Tamot, Kathmandu. There is a semantic block in 2nd kanda, 8th varga, 119 stanza and 2nd sequence number for Sanskrit kara or bandhanālaya in Classical Newari as follows:

2.8.119.2.

Sanskrit kārā, bandhanālaya
Nepali jhyālkhanā
English prison, jail

Newari
A1 (AD 1381) 45a.1 mi dhiña tālam chen
A2 (AD 1386) 92b.1 dhiłam chen
A3 (AD 1430) 74b.1 mīm dhiłam kulam chen
A4 (AD 1517) 50a.6 mī dhiña tālam chen
A5 (AD 1542) 74a.2 dhiłam chen

From this we see dhiłam means 'imprisoned' and the root of it is dhi(m). We have inflected and derived forms recorded in the Lexicon:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Function</th>
<th>Meaning</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>dhi-ñe</td>
<td>Infinitive</td>
<td>to imprison</td>
<td>A2 82a.2</td>
</tr>
<tr>
<td>dhi-nā</td>
<td>Non-finite</td>
<td>imprison-ing</td>
<td>A1 45a.1</td>
</tr>
<tr>
<td>dhi-na</td>
<td>Gerundive</td>
<td>imprison-ing</td>
<td>A4 67b.4</td>
</tr>
<tr>
<td>dhi-laṃ</td>
<td>Adjectival</td>
<td>imprison-ed</td>
<td>A1 92b.1</td>
</tr>
<tr>
<td>dhi-sā</td>
<td>Nom. Derivative</td>
<td>imprison-ment</td>
<td>A7 93a.7</td>
</tr>
</tbody>
</table>

This verb root was popular in Classical Newari. It is used in the GV eight times. They could be summed up as follows:

dhiṃ-nā 38b.3, 49b.5, 56a.3 dhim-na 54a.1
dhim-natā 53b.2, 58a.1
dhī-natām 55a.2
dhi-līsa 46a.4

The GV chronicler used dhīṃnā and dhīṃnatā in the sense of past tense. Dhi-ñe is also used in the manuscript of Naradasmriti (127b.1) of AD 1380.

In the course of searching the original form of the root dhi(m), an interesting fact is known. It is developed from ṭiṃ 'attack'. It is seen from the record of the Concordance file of the Lexicon in Nanartha varga (Polisemy section) of Amarakoṣa. The record is as follows:

3.3.84.1

Sanskrit puṛaskṛta
Nepali śatrule cadhai garieko
English attacked or harassed (by an enemy)

Newari

A4 (AD 1471) 67b.4  satruṣana dhīnā
A6 (AD 1598) 122a.4  satruṇa tīṃnā
A7 (AD 1471) 147b.5  sātraṇa tīṃnā

Most probably the root tīṃ is derived from Tibeto-Burman "daw "defy, interfere, be at enmity with", which is constructed from Tibetan slo-bo "bid defiance", Burmese taú "interfere in a quarrel" and so on. (Benedict, 1972: 63)

A developed form of the verb dhim- is still in use in modern Newari, Jorgensen (1936) has no record of it. Shresthacarya (1981) gives dhim "to shut a door and to intend, to force, to press" and Manandhar (1986) entered dhim "to push, to sell using pressure"

With these evidences, it could be believed that the word 'dhiḷīsa' of the GV should be related to the root dhi(ṃ) "attack, imprison" and -li is progressive assimilated form of "dhi-laṃ". The suffix -sa is locative marker. Thus dhiḷīsa could be translated as "in imprisoned or imprisonment"

Historical Context

In his second thoroughly revised edition of Medieval History of Nepal, Petech (1984) has given a good deal of information on Harasimha's event from Muslim sources. He had written only a sentence in the first edition (1958: 111) as for just an information:

"According to one tradition, he (Harasimhadeva) was taken to Delhi and then released."

Here it is worth hearing more information on it from Petech (1984: 113-114):

"According to the Muslim sources, at the end of 724 A.H. (AD 1324) Ghiyas-ud-dīn Tughlaq, the king of Delhi, marching back to his capital after his invasion of Bengal, entered Tīrbut, captured its capital Simraongarh, took prisoner the king and carried him to Delhi. Soon after reaching the city, in February or March 1325, the king fell victim of a mysterious accident. His successor Muhammad Tughlaq released Harasimha and reinstated him on the throne upon a promise of tribute. But at the end of that year Muhammad decided to annex Tīrbut to his dominions. Upon hearing of the intentions of the Sultan, Harasimha left his country and fled toward the hills; this is said to have happened in Muḥarram 726 A.H. (December 8th, 1325-January 6th, 1326)."

"Sa 446 māgha śudī 3' (AD 1326 January 7th) is the date of death of Harasimhadeva, who died on the way to Dolakhā in Tīpātān while fleeing from his capital Simraongarh. He had fled 25 days before on Śaka era vāla (vārā)bdiḥ yugma śaśi (1247) paśa śukla navamī ravīśū ( = sanaścara) vāra (AD 1325 December 14th, Saturday). This date is given in Nepalese chronicles mistaking vala (7) to vaṇa (5). Most probably nā of vaṇa is a script error made tradition of the original -la of vāla of the stanza, being identical both of the graphemes.

It is well known fact that Ghiyas-ud-dīn attacked Simraongarh at the last of AD 1324 and while returning to his capital Tughlakabad in Delhi, he fell victim of a mysterious accident collapsing of the newly made wooden rest-house in February 1325. It is mysterious that Harasimhadeva fled after a year of Ghiyas-ud-dīn's attack or after ten months of his death. Nepalese historians guessed differently on this. Now it is clear from Muslim sources that Ghiyas-ud-dīn actually took Harasimhadeva in imprisonment to his capital and his successor Muhammad bin Tughlaq (1325-1351) released him first, probably in March 1325, and attacked him again at the end of the year. Muhammad had to face 22 revolts of his dominions during his lifetime. (Pandey, 1988:142) Hindu king Harasimhadeva's revolt in the northern frontier should be one of them.

The GV chronicler gave the date of Harasimhadeva's death first and then started to describe the event of Ghiyas-ud-dīn's attack which happened one year earlier. He missed Muhammad's name, but described him as "rāyata monārapam thamu agumana yāna vasyaṃ simaranavanagh bhanga yāna" [(Muhammad bin Tughlaq) came and destroyed Simraongarh himself leading having assembled his subjects] The chronicler
describes episodes one after another with some incomplete expression.

The evidence that Harasimha was made prisoner and taken to Delhi is based originally on Isami's *Futuha-us-Salatin* written in AD 1326 by an eye-witness. Ferishta (1552 - 1623), Muslim historian, in his *Gulshan-i-Ibrahim* highlighted it well. (J. Briggs, 1829. *History of the Rise of the Muhammadan Power in India*, Vol. I, London, pp. 406-07) In his Bayaz, a Muslim mystic of the 16th - 17th century, Muslim writer Mulla Taqiya says that Harasimha was restored after sometime to his old kingdom by Muhammad bin Tughlaq. Later in AD 1325 he was again forced to leave his country. This time however, he fled to Nepalese hills. (Petech, 1984 : 114; Regmi, 1965, I : 289) Indian historians have repeatedly mentioned the popular belief of captivity of Harasimhadeva and the attack of Muhammad Bin Tughlaq on Simraonghar.

Now we come to the conclusion. With the linguistic and historical evidences mentioned above, it is clear that ज्ञटि ति means 'imprisonment'. And I would translate the GV record similar to the Muslim record cited above as follows:

In Nepal Era 446 माघa शुक्लa त्रिया (7th January, 1326), Harasimha, who kept enmity with Sultan Ghiyas-ud-din, went with Tughlaq in imprisonment.

References:


Gopalarajavamsavali (MS), c.NS. 509 (c. AD 1389), Palmleaf, Reel No. B 18/23, fols. 48.


Naradasmrti (MS), N.S. 500 (AD 1380), Palmleaf, Reel No. ML 29, fols. 135.


The Chomskyan Revolution in Linguistics and Foreign Language Teaching

Dr. Sunil Kumar Jha

1. Introduction

I intend to compare and discuss Chomsky (1966 and 1970) and Roca's (1979) views on comparatively recent theories of language learning and teaching, especially those on transformational generative grammar (TG) and their application to second/foreign language learning and teaching.

2. The two views: a comparison

In his essay Chomsky (1970: 53) cautions second/foreign language teachers against over reliance on the "fundamental disciplines" of linguistics and psychology. He says that even though both fields have made significant progress in recent years, they are still "in a state of flux and agitation". What appeared to be well-established and promising theories of learning a few years ago may now be subject of extensive controversy and debate. Opinions of recent and current authorities on learning theories are very much divided. Chomsky, therefore, advises the language teachers not to accept any of these theories for granted.

Throughout his essay Chomsky discusses two main theories of learning: the 'empiricist' theory, and the 'rule-governed' theory. Structural linguistics is closely associated with the former while transformational linguistics with the latter. According to the empiricist-behaviourist theory, a language is learned as a set of habits. These habits are acquired by means of 'stimulus', 'response', 'conditioning', 'reinforcement', 'association', 'generalisation' and so on. According to the rule-governed theory, a language is learned through the formation of a set of rules. Chomsky argues that the empiricist-behaviourist theory is inadequate to account for one of the most striking facts about language - its 'creativity'. He holds that a linguist's rule system - a generative grammar - is a model of the native speaker's linguistic competence.

Chomsky says for the rules to be sufficiently general, they must be abstract - many steps removed from physical fact. Regarding the question if the rules of this abstraction are learned or inherent, Chomsky (1970: 58) holds that the human mind has an "intrinsic intellectual organisation" which is inherently predisposed to make linguistic abstractions of great generality. As such, he feels that the main aim of both linguistic and psychological investigations of language should be to explore, determine and characterise man's innate capacity for language. He also believes that this is a field of enquiry where a good deal of investigation has still to be done in order to approve or reject any linguistic and/or psychological theories of language acquisition, learning and/or teaching. It is primarily in this context that Chomsky warned language teachers not to be too ready to follow the dictates of fashion without submitting them to careful scrutiny. As for Chomsky himself, he not only doubts the usefulness of any TG, or any other grammar for that matter, as a language teaching instrument but also questions the need for the overt teaching of grammatical rules.

In his paper, Roca (1979: 141), on the other hand, criticises "a common belief among language teaching theoreticians" that the possibility of a contribution from TG to second foreign language teaching is negligible. According to Roca, this generalised
impression prevailing in the language teaching community "is ill-founded". He argues (ibid) that "the Chomskyan revolution in linguistics has clear and crucial repercussions in the area of language learning and language teaching". He does not think that any language teacher or 'theorist' can now actually afford to ignore these repercussions. Rocca studied these repercussions primarily within the general context of Chomsky's doctrine of language and of man. And throughout his paper he tried to show where and how Chomsky's views could possibly be used to promote and strengthen second/foreign language-teaching activities.

Thus, Chomsky (1966 and 1970) emphasises the point that teachers should view any suggestions from linguistics and psychology with caution and scepticism. But the essence of Rocca's argument is that second/foreign language teaching-learning activities have in fact been - and can still further be - affected as a result of the Chomskyan revolution in linguistics. It seems that now even Chomsky would not entirely disagree with Rocca's view. It was nearly 26 years ago that Chomsky put forward his scepticism against the then dominant schools of psychology and linguistics - against Skinner's simplistic version of behaviouristic psychology and the structuralists' taxonomic approach to linguistics. But things are now no longer the same - they have actually undergone rapid and remarkable changes. Cognitive psychology has now made considerable improvements. And, in linguistics, TG has become the dominant paradigm (see Kuhn, 1970). It is really hard to imagine that anyone can now dismiss Chomsky's major contribution to the study of language. Today various aspects of language are seen from his perspective (see Brumfit, 1985; Richards and Rodgers, 1986; Lopez, 1989), and all current work in theoretical linguistics (see Dubin and Olshtain, 1986; Pattison, 1987; Yalden, 1987; Arnold, 1991; Keh, 1991; Kahler, 1992) carries, to a greater or lesser degree, the mark of his influence. In short, every other 'school' of linguistics - other than the TG or Chomskyan school - at the present time tends to define its position in relation to Chomsky's views on particular issues.

Language teachers, especially second/foreign language teachers, are now becoming more aware and conscious of Chomsky's views on various aspects of language. And, as a result of such awareness and insight, their language-teaching methods and techniques cannot but be affected, to greater or lesser degree. Even those teachers who are not yet well-aware of revolutionary ideas of the TG school may well use textbooks and teaching materials whose authors have been influenced by the Chomskyan revolution. In a word, then, the Chomskyan revolution does seem to have exercised its influence on almost all those people and programmes that are concerned with the teaching-learning of a language.

3. Discussions and comments

To arrive at some definite conclusions, we look into some of the areas of transformational analysis which have already influenced or which are likely to influence, language-teaching-learning programmes, methods and techniques. In the remainder of this paper, we concentrate our discussions on the following four main areas, each of which may be considered to be covering an important aspect of the TG school: (1) grammatical rules; (2) transformation and generation; (3) the distinction between linguistic competence and linguistic performance; and (4) the concept of linguistic universals.

3.1 Grammatical rules

An important concern of language teachers in applying linguistic notions to language teaching is regarding the presentation and function of grammatical rules. On this question of rules, the views of the transformationalists radically differ from those of the structuralists or empiricist - behaviourists. In the empiricist - behaviourist theory of language teaching-learning, grammatical rules have no place. This is because the behaviourist sees language only as a set of habits, and to him the learning of a language means the learning of that set of habits. The structuralists favoured this rationale and they therefore adopted the 'audio-lingual method' in language teaching - a method which consisted of 'mimicry', 'memorisation', 'pattern
drill', and so on. In this approach to language teaching, rules were seen (see Newmark and Reibel, 1968) as interfering with fluency and with the necessary formation of automatic responses.

But Chomsky's view is different. He has repeated his arguments against behaviourism on many occasions (see Chomsky, 1957, 1965, 1966 and 1970). As stated earlier, Chomsky rightly points out that the behaviourist theory fails to account for 'creativity' - one of the most important aspects of human behaviour manifest most clearly in language. His view is that to know a language means to be able to create and understand even new sentences in the language. He is right to say that the use of language involves rule-based generalisations - an infinite number of sentences can be produced by a rather small finite number of grammatical rules. This means that the speaker does not have to store a large number of ready-made sentences in his head; he just needs the rules for creating and understanding these sentences.

However, Chomsky (1970: 53) does not sound convincing when he asserts that it is "impossible to accept the view that linguistic behaviour is a matter of habit, that is slowly acquired by reinforcement, association, and generalisation" (my emphasis). For us the target language (TL) teachers, it seems rather hard to imagine that 'habit formation', 'reinforcement', 'association', 'generalisation', etc., plays no part at all in language use and language learning. In our view, rules for action are best learned in conjunction with demonstration and practice of the action. However, it is true that language learning cannot be a matter of overlearning all the possible correct sentences of a language - for it is humanly just impossible to do so (see Diller, 1978, for more discussions).

The classroom teacher can help his learners learn the TL by giving them advice on what to do and how to do it. And, in this enterprise, a few carefully chosen grammatical rules - surface rules to be used for pedagogic purposes, and not very abstract and deep rules - can be used to make them see how a certain system of the TL functions. As children, and even adults, tend to know the rules in a functional way, the teacher can carefully choose some interesting examples of a rule in operation to aid his learners' understanding of the rule. Recent and current experimental findings (see Diller, 1978; Brumfit, 1984 and 1985; Prabhu, 1985; Souillard, 1989; Mei-yun, 1991; Klassen, 1991; Swales, 1992) on the suitability of language teaching approaches and methods strongly suggest that a carefully chosen combination of rules and examples with classroom practice is more effective than just the one without the other.

TG can be said to have made a remarkable advance over structuralist models in that it has greater power to discover significant generalisations about language. Fundamental to TG is the notion of rules; rules are part of the device for generating the sentences of a language and they owe their justification to the part they play in that generation. The knowledge of the abstract grammatical rules of a language can improve the insight and effectiveness of the language teacher as well as of those who write textbooks and other teaching materials on that language. For the classroom teaching purposes, however, the surface or pedagogic rules of TG can be useful. But it seems that such rules alone, used as a single type of learning aid, cannot suffice. The classroom teacher does need a combination of several aids - such as, rules, interesting examples, meaningful practice, feedback, knowledge of results, and so on - in order to make his TL teaching activities much more effective, efficient and useful for his learners.

3.2 Transformation and generation

The theory of TG has two main aspects - 'transformational' and 'generative'. These two aspects are not logically dependent upon each other, though the theory gains plausibility from the interaction of the two. But the two aspects can and should be considered separately.

The transformational aspect of the theory is more important and perhaps more revolutionary. In the simplest form of the theory, a transformation can be thought of as transforming one sentence into another. According to this model, different types of simple, active, affirmative, declarative (SAD) sentences -
called 'kernel' sentences - are accounted for by means of transformational rules, whether 'obligatory' or 'optional'.

The generative aspect of TG means that a grammar must be so designed that by following its rules and conventions we could produce all or any of the possible sentences of the language. There are two important aspects of a generative grammar. In the first place, a generative grammar is not concerned with any actual set of sentences of the language but with the possible set of sentences. And it has a finite number of rules to generate an infinite number of sentences, just as the finite set of figures 0-9 allows us to generate the infinite set of numbers. Secondly, to say that a grammar is generative is to say that it is explicit and specific. That is to say, it explicitly indicates just what are the possible sentences of the language.

These two aspects of the theory have a number of advantages: the theory is powerful enough to disambiguate sentences, to handle the problem of co-ordination and sub-ordination, to frame finite rules for generating an infinite set of sentences, and so forth (see Huddleston, 1976, for more details). Therefore, like many other Pro-transformationalists, Roca (1979) rightly considers that TG is the best model, at the level of sentence description, that we have so far available. Roca also points out that Chomsky's view should not be misunderstood or misinterpreted. He holds that Chomsky does not say not to consider TG for language-teaching purpose; Chomsky simply cautions the teacher against over reliance on any theory of linguistics and psychology. This view is entirely true.

The next point that Roca (1979) makes is that TG should provide the input to the pedagogical grammar that informs our presentation of language in class. Regarding this view, we have some strong reservations. Owen Thomas (1964: 414), an extremely enthusiastic pro-transformationalist, held that question, negative and passive sentences were derived from kernel sentences; in his view, TG has everything that a teacher will like to look for: "As teachers we can hardly ask more of any theory". But we know that only after a year, with the publication of Aspects in 1965, TG moved on. Now the question,

negative and passive sentences were no longer derived from kernel sentences, and Owen Thomas was proved wrong in holding such an extreme view.

Other observers seem rather more cautious. For example, Allen and Buren (1971: 150) are of the opinion that there certainly seems to be a strong case for requiring that teaching grammars be based on an adequate theory of language, and that:

The problem - essentially a practical one - is to decide how much of the formal grammar we can allow to become overt in the teaching grammar at a given stage without endangering the pedagogical validity of the presentation.

And this is certainly a major problem. Although ever since 1957 TG has made considerable progress, it has still a long way to go in order to be practically applicable to classroom purposes. Lakoff's (1969: 129) view that "little is known about the exact form of most transformational rules" is still true. As foreign language teachers, we must therefore be careful; we must make all attempts to prevent our learners from being misled by tentative rules or findings.

Just as language learning does not mean the gradual building-up of a set of verbal habits, so also it does not mean simply the learning of a set of transformational rules or any other rules. The confusion of teaching texts with grammatical rules can be largely misleading. A badly written and confused teaching textbook - such as Paul Roberts' (1964) English Syntax - may be so misleading as to invalidate the claim that it interprets Chomsky and his theory of TG. We need to identify the insights that Chomsky's rationalist approach has actually given. But we must also remain aware and conscious of not joining those who, as Lakoff (1969: 129) puts it, "are not really using transformational grammar; they are using only its hollow shell of formalism; they are not employing rationalism at all, but resorting to new forms of the same old mumbo-jumbo".

3.3 Competence and performance
One of the most important of Chomsky's theoretical proposals concerns the distinction he makes between 'competence' and
'performance'. Chomsky (1965: 4) says that a person's linguistic competence is his tacit conceptual knowledge of his language. Performance, on the other hand refers to the actual use of language - including idiosyncrasies of given speaker, his slips of the tongue, hesitations, noises, pauses, memory lapses, and so on. According to the theory, the native speaker of language has "internalized set of rules" (ibid) which form the basis of his ability to speak and understand his language. The linguist's or grammarian's main aim is to acquire conscious knowledge of these rules - what Chomsky (ibid) calls "the ideal speaker-hearer's intrinsic competence." According to Chomsky, the linguist may well investigate the speaker's competence by observing what he says, but merely form part of the evidence of his competence. Chomsky holds that performance would resemble competence only in cases where the speaker is an 'ideal' speaker and his hearers are 'ideal' hearers. But competence underlies all performance, and even, in a rather circular way, depends on it. This is so because statements about competence are ultimately verified by being part of performance.

Like the notion of intuition, Chomsky's competence-performance distinction seems to be a theoretically valid one. But this distinction raises certain practical difficulties when we think of its actual use for language teaching purposes.

In the first place, Chomsky (1965:4) holds that the grammar of a language attempts to describe and account for "the ability of a speaker to understand an arbitrary sentence of his language and to produce an appropriate sentence on a given occasion" (my emphasis). But the questions arise: How do we establish what the speaker knows? And how do we determine what is appropriate or correct? The evidence would seem to lie in the speaker's utterances and/or the TG grammarian's own intuitive arguments. Some so-called 'applied linguists' - like Paul Roberts (1964 and 1966), for example - have unfortunately misunderstood and therefore misused the theory in classrooms, textbooks and other language-teaching materials.

Secondly, it is often not possible in practice to draw a line between competence and performance. This is so because we do not always know whether certain sentences are possible, i.e. grammatical or not. There are many forms in perhaps every language that seem to be half in and half out of grammar. For example, regarding the grammaticality of the English sentence - He will have been being beaten - opinions of native speakers of English differ. Supposing a native speaker rejects this, we need to ascertain some dependable answers to such questions as: Is his rejection a matter of competence or performance? Is it that he knows the rules but cannot apply them here? Or is it that one of the rules he himself 'knows' is that rules of combination do not allow: will + perfect + progressive + passive? Frank Palmer (1971: 159) rightly observes that "there seems to be no way of deciding this, and there are many such areas of 'fuzziness' in language."

Thirdly, some advanced learners of a second or foreign language learn the language with some specific needs in mind. We can take, for example, the case of the Nepalese learners of English as a foreign language. They need English primarily: (a) to be able to read and understand textbooks written in English, and (b) to understand the spoken English of lectures. It has been experienced that one of the features of good lecturing (in Nepal at least) is the inclusion of enough repetition and redundancy to give the learners time to absorb the main information the lecturer wishes to convey. This makes us consider the fact that redundancy and hesitation phenomena are an essential part of the language - they are part of the native speaker's competence as well. They may not form part of the linguist's grammar; but they must somehow or other form part of the teacher's pedagogic grammar. So the real problem lies in determining which and how much of these phenomena should be used, and in what forms.

Chomsky's competence-performance distinction does offer some help in this connection, but it is not sufficient.

Fourthly, on the point about sentence length, it is not clear that this is necessarily a matter of performance. The TG grammarian's argument is that there is no theoretical limit to the length of a sentence, but that the limit is set by performance features, in particular by the limitation of our memory. But it
may be the case that the native speaker knows that sentences should not go beyond a certain level of complexity. Chomsky's theory does not explicitly show where is, or should be, the 'cut-off' point. How do we, then, actually establish the competence-performance distinction? Merely to state that there is a difference and to give the labels 'competence' and 'performance' does not solve the problem - it only indicates that there is one.

Thus, Smith and Wilson (1979: 48) are right in holding the view that although a distinction between 'competence' and 'performance' is undoubtedly both a theoretical and a methodological necessity in linguistics, it has not yet been possible for the TG grammarians to draw an explicitly clear-cut distinction between these two notions. But this does not undermine the importance of the theory as such. Even though this theory does not offer any "ready answer", as Muskat-Tabakowska (1969: 54) puts it, to language teaching problems, it does nevertheless help the sincere teacher to look for and, possibly, find out some useful answers. In fact, the rise of rationalist cognitive approach has amply helped (see Brumfit, 1985; Prabhu, 1985) language teaching move from being a teacher-centred activity towards being a learner-centred activity - a move in right direction indeed.

3.4 Language universals

It appears that the most striking phenomenon of language is its universality. Virtually every person in the world knows a language. Languages of the world are not all that different as Martin Joos (1958: 96) says: "languages could differ from each other unpredictably and without limit." On the contrary, on an abstract level, all human languages seem to have a similar design. For example, all of them have sentences made up of words; they can all produce arbitrarily long sentences by embedding sentences within other sentences; they all exhibit grammatical relationships such as subject and predicate; the words in all languages are made up of discrete sound segments, and these discrete sounds can be sorted into natural classes according to their distinctive features (see Chomsky and Halle, 1968); and so on. Chomsky and his followers therefore put forward their claim (Chomsky, 1965; Chomsky and Halle, 1968) that all languages of the world seem dependent on the biological make-up of human beings, and that they therefore have an innately determined and universal structure.

Chomsky and his followers reject the structuralist conception that each language presents an individual and singular structure. Chomsky holds that all languages have the same general form and they utilise more or less the same type of rules (formal universals), and that they also present common categories and deep structures (substantive universals). Now the links between knowledge of the mother tongue and learning of a second/foreign language are shown in a new light. The mother tongue is now no longer seen as forming an annoying source of interference to be neutralised as quickly as possible.

Although the hypothesis of 'language universals' is still far from proven, it is nevertheless of considerable importance for language teaching. For example, it has helped us realise how much positive transfer can be made from the native language to second or foreign languages. Formerly we used to concentrate only on negative transfer. Translation is to some extent rehabilitated. Foreign language learners can be given a large vocabulary quickly by being made aware of cognate words, the principles of forming them, and so forth. By making a comparison between the grammatical structures of the mother tongue and the TL, the learners can have a clear idea of the features which each grammar lacks or possesses in relation to the other. This knowledge will greatly help him determine his selection, gradation, presentation and repetition of the target elements to be taught.

Recent studies (see Pattison, 1987; Klassen, 1991; Murdock, 1992) on TL acquisition strengthen Newmark and Riebel's (1968) claim that adult learners of a TL acquire that language in much the same way as they acquired their first language. They show the weakness behind the previously-held belief that adults, since they had passed a 'critical period', cannot achieve native speaker-like ability in a TL. This, then, means that language teachers should not underestimate adult learners' cognitive
powers, nor should they ignore such learners' different psychological needs.

Thus, TG in return to tradition admits the existence of linguistic universals and analogies between languages at the level of deep structure. Both these areas are of considerable importance for language teaching. The new concept of mother tongue teaching as an imitation to general problems of language and as a preparation for foreign language learning is gaining more and more acceptance among teachers nowadays. It is widely recommended now (see Chalon, 1971; López, 1989; Arnold, 1991; Kahler, 1992) that one should base the learning or teaching of the grammar of a TL on general knowledge of grammar acquired through the teaching of the mother tongue. But we must remember that the idea of innateness is less useful to language teachers. This is so because we are concerned to teach acceptable performance, not just abstract linguistic competence. And, as we know, performance rules, being social variables, are less likely to be innate. Nonetheless, the teacher can make his TL teaching much more effective, efficient and useful for his learners by transferring a great deal of the conventions from one language to another, and TG does provide some convincing and helpful basis for the necessary transfer.

4. Conclusion

To conclude, TG - as developed by Chomsky and his followers - appears as a synthesis of the most interesting contributions of traditional and structuralist grammar. The importance of TG lies in the fact that it does not simply provide a list of forms and structures as did the structuralist grammar; TG also provides limited rules which, contrary to those of traditional grammar, are clear, formally explicit and ordered, which have great generalising power, and which permit the generation of an infinite number of grammatical constructions. As far as the scientific analysis of language is concerned, TG has made substantial progress and it is unquestionably the best theory of language description that we have so far available. Here what Chomsky has done is to provide a coherent account of how testable and interesting claims can be made about linguistic knowledge whether innate, acquired or learned. The significant point to note is that there is no level in Chomsky's framework which cannot be supported by some independent factual observation.

But there have emerged a number of serious problems in implementing the theory for language-teaching purpose. We can take, for example, the tentative attempts made by Paul Roberts (1964 and 1966) and Owen Thomas (1964) at applying TG to language teaching, which failed miserably in achieving what they intended to achieve. It seems that TG is still considerable distance away from producing a complete solution to language teaching problems. In fact, both at the level of theory and description, and at the level of application to language-teaching, TG raises almost as many problems as it solves. TG has much to say in connection with the 'what' and the 'how' of language, but it has little to say about the 'when' and the 'why' of it. This means that TG is useful and promising but not sufficient for language teachers and language learners. They must therefore look beyond TG for the knowledge of the above and the like other questions in order to fully meet their respective needs.

In fact, the more lasting repercussions of the Chomskyan revolution lie, as Roca (1979: 141-142) had already predicted, not so much in the technical formulation of TG but within the general context of his doctrine of language and of man. The picture of language that emerges from Chomsky's writings, though complex, is generally clear. According to him, language is a reflection of the human mind, not just in the sense that humans have produced it, they learn or speak it, but in the much more specific sense that language is as it is because the human mind is as it is. The human language faculty is unique and innate, and Chomsky's main achievement has been to make this clear. The future may well prove Roca (1979: 141) entirely right in holding the view that the Chomskyan revolution will have "clear and crucial repercussions in the area of language learning and language teaching".
At the same time it must also be mentioned that Chomsky himself seems to believe that the implications of rationalist theory are much more important to language teaching than the applications of TG. In a word, Chomsky's (1970: 55) following remark that:

Teach, in particular, have a responsibility to make sure that ideas and proposals are evaluated on their merits, and not passively accepted on grounds of authority, real or presumed. The field of language teaching is no exception. It is possible - even likely - that principles of psychology and linguistics, and research in these disciplines, may supply insights useful to the language teacher. But this must be demonstrated, and cannot be presumed. It is the language teacher himself who must validate or refute any specific proposal. There is very little in psychology or linguistics that he can accept on faith.

is indeed, and no sensible language teacher can afford to ignore it.

References


Structure and Content in Sentence Development

WAYNE AMTZIS*

The ideas behind the demonstration lesson I am going to present can be traced back to my misreading of Chomsky. The lesson, perhaps, is then based on a misunderstanding of the nature of language generation, rather than on an appreciation of how students learn. Popular assumptions that grammar instruction has a minimal role in language acquisition are disregarded here, as is the need to contextualize grammar to avoid instruction through isolated meaningless sentences. Moreover, this lesson has no place in a student centered curriculum, as students are asked to read a text as if it were written with a particular restrictive meaning in mind, and to write within the confines set by the teacher.

At this point then, it seems ridiculous to even consider presenting the lesson, except for the fact that the students, when completing the tasks set before them, seem satisfied, seem to realize what they have learned and that they have learned. However arbitrary the approach and intent, the lesson seems to work.

Updike, in one of his Beck books satirizing the Jewish Novelist, has his protagonist the author of a book entitled TRAVELLING LIGHT. Without intending to satirize myself, I take that as my motto when entering the classroom. No textbooks, no theories, and in this as a means of instruction.

* Amtzis teaches creative writing courses in Kathmandu.
Thus, the key assertion of this lesson is that a single well written sentence can provide the basis for a language lesson.

The lesson itself is a series of sentence completion tasks focusing on the use of the present perfect tense, followed by reviews of what the students have written. Since we are working with a single sentence, we shall parse the sentence out phrase by phrase. Initially, the focus of review shall be on grammar, and then on content. Rather than describe the lesson, let me demonstrate the procedure.

However, since we are not English language learners, while completing the tasks, we should also consider what the student's approach to these tasks might be. How are we utilizing these arbitrary and initially context-less sentence fragments?

A single well written sentence can provide an effectual basis for a language lesson. The opening sentence of the *Fate of the Earth* by Jonathan Schell (1982, New York: Alfred A. Knopf) is such a sentence: "Since July 16, 1945, when the first atomic bomb was detonated at the Trinity test site near Alamagordo New Mexico, mankind has lived with nuclear weapons in its midst." It is a meaningful sentence that students respond to because of the content and its implications. It is a useful sentence for teaching purposes for it displays structure in a way that can be readily imitated.

By introducing Schell's sentence phrase by phrase and with holding the context, the teacher can make students aware, as the additional phrases are introduced, of the interrelationship between grammar and meaning, and of the contextual basis for assertions. Thus, without being told the context or the entire sentence of their own. In the process of creating their own sentences from the fragments provided, the students learn to use these particular constructions.

While at the outset their concern should be with grammatically correct usage, overall they will work on the coordination and presentation of information in a meaningful way.

The lesson described in this article is a grammar-based writing lesson useful for review of contrasting tenses and clause types in a writing course for intermediate and advanced students. The sentence completion techniques applied in the lesson enable students to see the relationship between context and assertion and between grammar and meaning within a sentence. Although the lesson relies on one model sentence, the skills taught are applicable in constructing paragraphs.

**Focus on Grammar**

**Student Task 1.**

Write a sentence beginning with the word "since".

**Teacher's Review 1.**

Distinguish between the use of "since" referring to time and referring to cause. In this lesson the students will be using the present perfect (or the present perfect continuous) to indicate a repetition of an activity in the past or to recount a situation that begins in the past and continues to the present. Thus a teacher could begin the lesson instead with task 2 and instructions concerning the use of the present perfect.

**Student Task 2.**

Write a sentence beginning with "Since July" (or if it is July, any appropriate month).

**Teacher's Review 2.** To review student work during this lesson, write three or more of the student responses on board for use as the basis for explanation. If many students are writing sentences such as "Since July I am working at this office," then the difference between "Since" and "now" needs to be clarified.

**Student Task 3.**

Complete a sentence beginning with "Since 1945".

**Teacher's Review 3.**

The change in time will now reflect a change in content. Students ought not to be writing sentences about themselves, but more appropriately about their parents or the countries where they live.
**Student Task 4.**

Complete a sentence beginning with "Since July, when".

**Teacher's Review**

Differentiate the use of "since" and "when." Here, although the main clause begins with "since," this clause is split by a dependent clause beginning with "when." "When" begins a dependent clause that modifies the date and introduces action that occurred at a particular time in the past. The verb used after "since" should indicate what has happened from that time in the past. Weaker students may initially be asked to write sentences in the simple past, like "In July, (something happened......)." They can next be asked to rewrite the sentences, beginning with "Since July, when (something happened......).

**Student Task 5.**

Complete a sentence beginning with "Since 1945, when."  

Teacher's Review 5, based on student responses.

a. "Since 1945, when India has gained its independence, she was democracy."

b. "Since 1945, when my grandfather became a Gurkha, he did soldier's work."

For responses such as these, set up a time line of action or use questions to guide the students: What happened in 1945? What has happened since then?

When the students have clearly understood the use of the present perfect and of the past tense through sentences the teacher can begin to introduce the content of Schell's statement.

**Focus on Content**

**Student Task 6.**

Complete a sentence beginning with the clause "Since July 16, 1945, when the first atomic bomb was detonated."

**Teacher's Review 6.**

The sentences that the students now write often refer to Hiroshima and Nagashaki. At this point, it is not the historical accuracy of the student responses, but the student's ability to coordinate whatever assertions they make that needs to be emphasized. Thus whatever has happened since July 16, 1945, should have some relationship to the first bomb detonation.

**Student Task 7.**

Add "at the Trinity test site near Alamagordo, New Mexico" to the statement the students are working with.

**Teacher's Review 7, based on student responses.**

This additional information clarifies the historical setting, and at the same time gives direction to the student responses. Since the action in the past has been fully stated, it more strictly determines what follows. The students will not be writing about Hiroshima, and though someone might place the action in Mexico, most will be considering what has happened in that place or since that time as a result of the detonation. For example, "Since July 16, 1945, when the first atomic bomb was detonated at the Trinity test site near Alamagordo, New Mexico......"

- that place has not been habitable.
- many people have been suffering from disease.
- more rests have been made.
- people have protested nuclear weapons.

All these student responses are, as corrected, more or less acceptable. Response #2 needs to be more clearly related to the test site area or to nuclear fallout in general. Response #4 would be better coordinated if: "the testing of" were added.

**Student Task 8.**

Now introduce the subject of the sentence: "mankind."

**Teacher's Review 8.**

"Mankind" as subject, narrows the range of assertions. Statements referring to the habitability of the test site or the suffering of the people there will be too specific to be suitable. Thus, while the dependent clause demarcates a particular period of time, the action in the present perfect, the action the students choose to present, need not refer directly back to the first
detonation. Sentences that resemble the author's, that characterize this period through the action described, will be the most meaningful.

Follow-up

To end the lesson, offer the students the complete statement as written by Jonathan Schell in The Fate of the Earth: "Since July 16, 1945, when the first atomic bomb was detonated at the Trinity test site near Alamagordo New Mexico, mankind has lived with nuclear weapons in its midst." The students should by now understand both the structures used in the sentence and the meaning conveyed. Thus, they can readily see that the author, Jonathan Schell, uses the subordinate clause to establish the context for his seemingly neutral, but far reaching assertion.

For those teachers who want to utilize the ideas raised by The Fate of the Earth, a lesson on paragraph development could begin here. The teacher can ask the students to write a paragraph on the topic The Fate of the Earth using Jonathan Shell's opening statement as their own. The students should be made aware of the context that the opening sentence provides since it will delimit what the paragraph can include. References to nuclear energy, for example, fall outside the range that the author has established.

The title, The Fate of the Earth provides the theme. It should be used by the students to narrow the range of their assertions and as a guideline in developing their conclusions. Together the opening sentence and the title should guide the students in their writing. Thus, students who would speak of the evils of science, for example, a stock essay topic for college exams in Nepal, or would make any assertion broader than or outside the given context soon realize, as they did with the sentences they wrote for their earlier tasks, what their paragraphs can appropriately and effectively include.

With this context based awareness of what sentences and paragraphs can and cannot include, students may now undertake more open-ended essay assignments. Ask them to consider a significant event in their own or their country's past. How were they affected by it? How might they have been changed by the event or situation? What has happened since? Where knowledge of events is shared students can work together in groups. The sentence patterns practiced in this lesson can provide the initial framework for developing their essays.

Some teachers, however, may want to start the series of lessons here with the more open-ended and broader task of writing an individual or group based essay and use The Fate of the Earth sequence as a more focused and controlled review lesson. From the beginning then the students will be working within the contexts that they perceive. Regardless of how one proceeds, I hope that the benefits of taking time to closely focus on sentence structure and content and their intimate relationship have been made apparent.

Concluding Remarks

In conclusion, let me emphasize that by initially withholding context and gradually introducing it phrase by phrase, I am in effect emphasizing context. Though, at the outset, students seem to be working with context-less phrases that only they can give meaning to, by reworking this arbitrarily chosen sentence by taking up each additional phrase, the students gradually become aware of the single well written sentence I am utilizing. Aware of its content. Aware of its context. Aware of its use.
Error Analysis: Implications in Nepalese Context

- Simon Gautam

I attempt to analyse the grammatical errors the Nepali speaking learners of English as a Foreign Language (EFL) have made in their extended prose writing. I conducted the field study on 40 such learners of (PCL 1 Year, Humanities) Navadurga Multiple Campus, Bhaktapur (Private) and Bhaktapur Multiple Campus, Bhaktapur during 1990. The study recorded in abundance the interlingual, intralingual and developmental errors. The description and explanation of error types and their frequency percentages imply changes in syllabus designing, teaching material preparation, classroom teaching and evaluation system. Endorsing Levenston’s reformulation concept, the study shows the need to teach extended prose writing techniques to the learners. I present the analysis through error types and frequencies, error descriptions, error explanations, and finally all their implications in the Nepalese EFL teaching and learning environment.

1. Error Types and Error Frequencies

Following Halliday, McIntosh, Strevens (1964), Corder (1973), Richards (1973), and Jain (1973), I present the error types and their frequencies under three subheadings: grammatical errors, lexical errors, and orthographic errors (see Table 1 below).

---

Table 1: Frequency and Percentage of Error

<table>
<thead>
<tr>
<th>Error Type</th>
<th>Total No. of Items Used</th>
<th>Total No. of Systematic Errors</th>
<th>Frequency Percentage of Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammatical Errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tense</td>
<td>1540</td>
<td>585</td>
<td>21.86</td>
</tr>
<tr>
<td>Word Order</td>
<td>1106</td>
<td>480</td>
<td>17.94</td>
</tr>
<tr>
<td>Concord</td>
<td>1223</td>
<td>360</td>
<td>13.45</td>
</tr>
<tr>
<td>Modifiers</td>
<td>646</td>
<td>142</td>
<td>5.31</td>
</tr>
<tr>
<td>Prepositions</td>
<td>329</td>
<td>97</td>
<td>3.62</td>
</tr>
<tr>
<td>Syntactic Devices</td>
<td>100</td>
<td>50</td>
<td>1.87</td>
</tr>
<tr>
<td>Lexical Errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lexis</td>
<td>-</td>
<td>100</td>
<td>3.74</td>
</tr>
<tr>
<td>Morphology</td>
<td>-</td>
<td>30</td>
<td>1.12</td>
</tr>
<tr>
<td>Orthographical Errors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punctuation</td>
<td>1932</td>
<td>452</td>
<td>16.89</td>
</tr>
<tr>
<td>Spelling</td>
<td>5907</td>
<td>380</td>
<td>14.20</td>
</tr>
<tr>
<td>Total</td>
<td>12783</td>
<td>2676</td>
<td>100.00</td>
</tr>
</tbody>
</table>

2. Error Descriptions

Table 1 presents the learners' errors in categories and subcategories which I intend to describe in terms of the rules of the English language - how deviant structures differ from the well formed ones.

2.1 Grammatical Errors

The subcategories under grammatical errors are: tense, word order, concord, modifiers, prepositions and syntactic devices.

2.1.1 Tense

Tense here refers to the expression of the three subdivisions of time - past, present and future - through verbal forms. The presence and absence of -ed in verbs generally indicate past and non-past tenses in English respectively, for example walked and walk. Tense errors which occupy the highest frequency (21.86%), fall into: errors in form and errors in use.
The frequency of errors in verbal forms is relatively higher than that in use. However, the importance of the latter is no less greater from the communicative viewpoint. The following are illustrations of the variety of these errors:

Table 2: Errors in Forms and Uses of Tense

Forms

Copula Omitted
- His father name Rajendra Thapa
  (= His father’s name is Rajendra Thapa.)
- He loves everybody and polite to all. (= He loves everybody and is polite to all)

Verb + -ing for Verb Stem + -s or without -s
- In the rainy season the monsoon flowing .... (= In the rainy season, the monsoon flows.)
- In my country many kinds of people living (= In my country, many kinds of people live.)

Copula + Verb Stem for Verb Stem with or without -s
- We are both read. (= We both read.)
- I am live on my village. (= I live in my village.)

Participle Verb Stem without Copula + -ed
- In 2017 BS the democracy replace by King Mahendra. (= In 2017 BS the multiparty democracy was dissolved by Late King Mahendra).
- He like by everybody. (= He is liked by everybody.)

Verb Stem with/without -ed and Auxiliary Omitted
- When anybody to see him ....
  (= When anybody went to see him ....)
- I don’t Amerike .... (= I don’t like America ....)

Auxiliary Omitted
- Tomorrow they make our village City. (= Tomorrow they will make our village a city.)

- Our village in Road. (= Our village has a road.)

Uses

Simple Past for Simple Present
- Here King Birendra ruled all over the Nepal. (= King Birendra rules all over Nepal.)
- I liked Nepal. (= I like Nepal.)

Simple Present for Simple Past
- It is a backward village twenty years ago. (= It was a backward village twenty years ago.)
- Twenty years ago fertilizers are not available. (= Twenty years ago fertilizers were not available.)

Present Progressive for Simple Present
- They feeling all person relation brother. (= They feel that all are brothers.)
- Many kinds of people living in Nepal. (Many kinds of people live in Nepal.)

2.1.2 Word Order

The word order errors refer to the failure to apply rules about the sequential arrangement of words within a sentence/phrase (e.g. subject (S), verb (V), object (O), and adverbial (A) in English) by the Nepali-speaking learners.

It is to be noted that English is a configurational language where words having various grammatical functions like SVO & A are arranged in a fixed sequence. Accordingly, words in basic English sentences can be arranged into nine types as follows (Quirk et al., 1973:12-13):

<table>
<thead>
<tr>
<th>Types</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAVO</td>
<td>John carefully searched the room.</td>
</tr>
<tr>
<td>SVACA</td>
<td>The girl is now a student at a large university.</td>
</tr>
<tr>
<td>SVCA</td>
<td>His brother grew happier gradually.</td>
</tr>
<tr>
<td>SVAA</td>
<td>It rained steadily all day.</td>
</tr>
</tbody>
</table>
Similarly, there is a fixed word order within a phrase also. Let us consider the structure of a Noun Phrase (NP). The structure may consist of premodifiers, noun as the head and postmodifiers. Of them, noun is obligatory, while premodifiers and postmodifiers are optional shown in the following diagram, and the examples:

**Diagram**

![Diagram of Noun Phrase](image)

**Examples (Quirk et al., 1973: 59):**

- **(Pre+N)**
  - (a) The girl
  - (b) The pretty girl
  - (c) The pretty girl in the corner
  - (d) The pretty girl who became angry
  - (e) She

- **(Pre+Post)**
  - (a) The girl
  - (b) The pretty girl
  - (c) The pretty girl in the corner
  - (d) The pretty girl who became angry
  - (e) She

The enumeration of data in Table 3 below however, shows that Nepali speaking learners make a large number of errors in English word order. Such errors have been observed to have the second highest frequency, 17.94% (Table 1). These errors may be grouped under two major categories - sentential and phrasal word orders.
2.1.3 Concord

Concord here refers specifically to the Concord of person, number, and gender between subject on the one hand and verb and possessive and reflexive pronouns on the other, for example S + V Concord: 'The window is open' (Sing + Sing), and 'The windows are open' (Plur + Plur); S + Possessive Pronoun Concord: 'He stood at the door with his hat in his hand'; S + Reflexive Pronoun Concord: 'Mary told John that she would look after herself' (Quirk et al. 1973: 176-180).

The data enumeration in Table 4 below shows that the learners have made a good deal of errors in English Concord. Such errors are 13.45% (Table 1). These errors may be categorized into: (i) S + V concord; (ii) S + Possessive Pronoun (pp) concord; and (iii) S + Reflexive Pronoun (RP) concord.

Table 4: S + V, S + PP and S + RP concords

Plur S+ Sing V/Sing S + Plur V for Plur S + Plur V/Sing S + Sing V
- The chief rivers of Nepal is the Koshi, The Gandaki (= The chief rivers of Nepal are the Koshi and the Gandaki.)
- Ramesh read text books (= Ramesh reads text books.)
- When she have extra time .... (When she has extra time....)
- Dashain and Bhaitika is our festivals. (= Dashain and Bhaitika are our festivals.)

S+ Possessive Pronoun concord
- Somebody go to work in their field. (=Somebody goes to work in his field.)
- He father name Rajendra (= His father's name is Rajendra Thapa.)
- His have house and my house in village (=His house and mine are in the village.)

S + Reflexive Pronoun Concord
- We are develop our village. (We are developing the village ourselves.)

- I am my village's boy. (=I am myself a village's son.)
- Same experiences with my. (=I have similar experiences myself.)

2.1.4 Modifiers

Modifiers here refer specifically to those classes of words that restrict and qualify the meaning of those classes of words that fall under both count and mass nouns, and to those that further intensify the adjectives, for example the beautiful painting; his main argument; your daughter is pretty; the children are very happy; they have a house much larger than yours; he liked Mary considerably; politically, it is a bad decision; the city council; a stone wall; a love poem; he seems a fool (Quirk et al. 1973: 114-142).

Basically most adjectives are used both attributively and predicatively but there are some others that are used in either or forms. There are some adjectives that are formed with the help of 'our's' suffix, but there are many others that do not have any identifying shape. Apart from those that allow for inflections for comparative and superlative degrees, there are several that do not allow any inflections for such purpose. Similarly, there are several adverbs that are formed with the help of 'ly' suffix, but there are others that do not allow such inflection. Most adjectives can be premodified by the intensifier 'very', such as 'very happy'.

The errors in modifiers are 5.13% and may fall under two broad categories: attributive and predicative use of adjectives and adverbs.

Table 5: Attributive and Predicative Uses of Adjectives

Attributive Use

Noun for adjective
- Nepal is a democracy country. (= Nepal is a democratic country.)
Countable for Non-countable / Abstract N.
- There is many developments. (= There is much development.)

Adverb for Adjective
- He is a very attentively boy. (= He is a very attentive boy)

Uncountable for countable
- Nepal has too much villagers (= Nepal has too many villagers.)

Determiner for Adjective
- Any people in business. (= There are many people in business.)

Adjective for Noun and Vice versa
- The main religious are Hindus and Buddhists. (= The main religions are Hinduism and Buddhism.)

Predicative Use
Superlative for Positive
- There sanitation is very best. (= There sanitation is very good.)

Errors in the form of comparative Degree
- He is as old than I (= He is as old as I am.)

Errors in the use of Articles
- Absence of 'the'
  - Name of my village Dadhikot (= The name of my Village Development Committee is Dadhikot.)
- 'the' for 'Ø'
  - One the happy in company with him (= One is happy in company with him.)
- 'a' for 'an'
  - Our village is a old tree (= Our village has an old tree.)
- 'a' for 'Ø'
  - They brought a electricity (= They brought electricity.)
- 'Ø' for 'a'
  - He is very lucky man. (= He is a very lucky man.)

2.1.5 Prepositions
Prepositions here refer to the mono-syllabic simple prepositions of basically time and space, such as for and since; with and by; in, into, on, and at; from; the genitive of; and to. Prepositions (pre + positions) express relations between the two entities, and among these relations, those of time and place stand foremost.

The data enumeration in Table 6 below shows that the learners commit a great deal of errors in the use of prepositions. Such errors have been observed to be 3.62% (Table 1).

Table 6: Prepositional Error Categories and Descriptions

'For' instead of 'Ø', 'in', 'since', 'at', 'to'
- Farmer for do field work (= farmers do their field work.)
- He is for the campus (= He is in the campus.)
- Nepal free for 2007 BS = Nepal is free since 2007 BS.
- I am a student for College (= I am a student at the College).
- My friend goes to school for study (= My friend goes to school to study.)

'With' instead of 'Ø', 'from', 'of', 'at', 'by'
- He is reading with a book (= He is reading a book).
- I come with the village (= I come from a village.)
- On top with the hills .... (= On top of the hills ....)
- With ten O'clock (= At ten O'clock ....)
- I go with bus (= I go by bus.)

'By' instead of 'into', 'with'
- The town is divided by 17 wards (= The town is divided into 17 wards.)
- He like to enjoy his friend by joke (= He likes to entertain his friend with jokes.)

'In' instead of 'Ø', 'on', 'for', 'to', 'by'
- It was a backward village in twenty years ago (= It was a backward village twenty years ago.)
The school in the roadside (= The school is on the roadside.)
- I am working in the village (= I am working for the villagers.)
- Tourist go in the village. (= Tourists go to the villages.)
- I go in bus (= I go by bus.)

'At' instead of 'of', 'in', 'to'
- He goes at home (= He goes home.)
- They playing at morning (= They play in the morning.)
- Tourists goes at the Bhaktapur (= Tourists go to Bhaktapur.)

'On' instead of 'of', 'in', 'at', 'with', 'of', 'to'
- Sushil loves on national costume (= Sushil loves the national dress.)
- They believe on the religion (= They believe in religion.)
- He comes on times (= He comes at times.)
- They play on life (= They play with life.)
- Temples are the property on the district (= The temples are the property of the district (Bhaktapur.)
- The book belongs of you (= The book belongs to you.)

'Te' instead of 'for', 'in'
- This is to you (= This is for you.)
- My village is to Bhaktapur district (= My village is in Bhaktapur district.)

Omission of 'into', 'in', 'to'
- It can divide three part (= It can be divided into three parts.)
- My campus is small town (= My campus is in a small town.)
- Every child goes school (= Every child goes to school.)

2.1.16 Syntactic Devices

Syntactic devices here refer to those words or expressions that connect sentences or paragraphs together. Quirk et al. (1973: 284-308) mention three factors that interact in pointing to links between sentences, such as syntactic devices, lexical equivalence, and implication in the semantic content. Since the main focus of the study is on the grammatical errors, we concentrate here on syntactic devices leaving the other two aside.

Under grammatical errors, the errors on syntactic devices are found to have 1.87% error frequency (Table 1). These errors fall into five categories: time relaters, place relaters, logical connectors, enumerations, and transition.

Table 7: Syntactic Device Error Description

Time Relaters: Wrong Use of Adverbials

The following illustrations depict the wrong use of temporal series of adverbials, such as firstly (first), secondly (second), thirdly (third), and before respectively:
- It part divide our society put this area name is firstly Himalayas area, secondly mountain area, thirdly Terai area (= Geographically, our country is divided into the Himalayas, the mountains, and the terai.)
- First, I live in village (= I live in a village.)

Place Relaters

We find the place-relationship-showing word, such as here being misused in these illustrations.
- Here are many old temple and many kinds of house in Bhaktapur (= There are many old temples and buildings in Bhaktapur.)
- Many people go to here and read a news (= Many people go there to read the newspapers.)

Logical Connectors

The following illustrations amply show the logical connector and either being left out or being inappropriately used.
- The chief rivers of Nepal is the Koshi, the Gandaki (= The chief rivers of Nepal are the Koshi and the Gandaki.)
- They grow corn and vegetable and cash corn (= They grow corn, and cash crops, such as vegetable.)
- Here came in electricity panchayat and village (= The electricity has reached the village.)
Symbols (ie, ‘&’ and ‘+’) used for ‘and’
- It have very wooden & brikes house (= It has many wooden and brickbuilt houses.)
- At hill side, the Himalayan keeps the goats + sheep (= Along the hills, the dwellers farm goats and sheep.)

Enumeration
Enumerative conjuncts indicate a listing of what is being said. Result sentence connectors are one of the categories under these conjuncts. The following illustrations show how some of these conjuncts are used inappropriately.
- I am a villager’s boy so I am going stress to my village (= As a villager’s son, I would like to emphasize the development of my village.)
- So any man is poor (= Here, everybody is poor.)

Transition
With reference to the use of transitional words, the following illustration shows the wrong use of ‘now’:
- In this animal and bird sea now village develop (= There can be seen animals and birds in the village. The village is on its way to development.

2.2 Lexical Errors
The subcategories under lexical errors are: lexis and morphology.

2.2.1 Lexis
The errors in lexis refer to the failure in the choice or use of right word at the right place. The enumeration of data in Table 8 below suggests that Nepali speaking learners of English make a large number of errors in choosing the proper lexical items. Such errors account for 3.74% (Table 1), and may be grouped under wrong choice of lexical items, and homonyms.

Table 8: Lexical Errors

Errors in the choice of Lexical Items
- His face is not very beautiful (= His face is not very handsome.)
- My campus lives middle side in Bhaktapur city (= My campus is situated in the middle part of Bhaktapur city.)
- I am sitting Ward No. 9 (= I live in Ward No. 9)
- She abused that don’t be progression of villagers (= She cursed saying that there be no progress in the village.

Errors in Homonyms/Homophones
- There is sortage of schools and teachers (= There is shortage of teachers and schools.)
- He tells me that travelling is a short of education (= He tells me that travelling is a sort of education.)

2.2.2. Morphological Errors
Morphological errors here refer to those errors that are related to the formation of words by affixation.

The enumeration of data in Table 9, below suggests that the learners do make a number of errors in forming various words. Such errors account for 1.12% (Table 1) which is the lowest in frequency rate. The errors below pertain, particularly, to the use of suffixes.

Table 9: Errors in Suffix Use and its Formation

‘-es’ for ‘-ers’
- All the lectures are always cheerful (= All lecturers are always cheerful.)

‘-er’ for ‘-es’
- My friend, Hariom, is very popular is his school and village by his joker (= My friend, Hariom, is very popular both in his school and the village through his jokes.)

Unnecessary Formation of ‘-en’ for ‘∅’
- It have very wooden and briken (= It has many houses made of wood and bricks.)
Lack of '-ment'
- There are many develop (= There is much development.)

Wrong use of '-ly'
- My village is changu Narayan Temple was nearly (= My village is nearly Changu Narayan Temple.)

Absence of '-ly'
- Other country say Nepal is a friend country (= Other countries call Nepal a friendly Country.)

Formation of '-est' for 'θ'
- There situation is very best (= The situation there is very good.)

Absence of '-ful'
- There are garden and beauti temple (= There are a garden and a beautiful temple.)

2.3 Orthographical Errors

Orthographical errors include here the errors in the use of punctuation marks and the spellings.

2.3.1 Punctuation Errors

Punctuation errors here refer to those that occur in the use of capitals, stops, and commas. The enumeration of data in Table 10 below indicates that the Nepali-speaking learners of English make a great deal of errors while using the punctuation marks. The frequency percentage for such errors is 16.89%, the third highest in the total error types (Table 1). These errors are, in general, under capital letters, stops, and commas.

Table 10: Errors in Capitals, Stops and Commas
- I have many friends my best friends is ramesh thapa (= I have many friends, and Ramesh Thapa is my best friend.)
- there is only a narrow footpath to go to my village (= There is only a narrow footpath to go to my village.)
- they are Popular in World (= They are popular in the world.)

2.3.2 Spelling Errors

The spelling errors here refer to those in: proper names, mass and count nouns, verbs, adverbs, and adjectives. The English word has no set rules to learn its spelling. For Nepali proper names, there is however a process of romanization, such as 'ka' for क, 'kha' for ख and the like. The enumeration of data in Table 10 below is very much indicative of the Nepali speakers of English making a great many errors in spellings. The frequency percentage of errors in spelling – fourth in total error types – is 14.20 (Table 1).

Table 11: Spelling Errors
- Agriculture is the main occupation (= Agriculture is the main occupation.)
- The industries are succesfull when their have enoughs good quality raw materials are successfull (= The industries that have enough qualitative raw materials are successful.)
- My friend is member of a simple famaly (= My friend is the member of a simple family.)
- in Nepal national language is Nepale (= In Nepal, Nepali is the national language.)
- He is papular by joker (= He is popular as a joker.)

Above I have presented a brief description of the grammatical, lexical, and orthographical errors the Nepali learners of English have made. Below I attempt presenting the plausible explanations of these errors.

3. Error Explanations

The explanation of errors here refers to a plausible discussion of the causes and sources of the errors described above (Tables 2
through 11). However, I admit, I have attempted to present a
generalized form of explanation and so have refrained from
delving into the linguistic complications and the individual errors
without, of course, losing sight of the purpose of offering
remediation of errors.

First, I take up the explanation of the causes and sources of
those errors that seem to result from the learners' use of the
structure of Nepali language into the target language (English) –
the interlanguage errors. Second, I take up the intralingual errors
which, unlike the first ones are believed to have reflected the
general characteristics of rule learning. And third, I take up the
developmental errors that show the learners' attempt to build up
hypotheses about the target language based on their limited
exposure to the classroom or the textbook.

These apart, Richards and Sampson (1973 : 3 - 18) have given
some more factors that influence the foreign language learning
and thereby cause errors. These factors are: (i) the effect of the
socio-linguistic situation, (ii) the modality of exposure to the
target language and the modality of production, (iii) the age of
the learner, (iv) the instability of the learners' linguistic
system, and (v) the effects of the inherent difficulty of the
particular item being learnt.

The list of plausible causes and sources of errors goes still
further. There might as well be psycholinguistic situations,
universal hierarchy of difficulty, the textbook itself, communication motive factor, unguided imitative behaviour and
untutored responding in terms of prior learning and many more
which only the later researches will reveal. Therefore,
whatever explanations I attempt to offer here are neither the
end-alls and the be-alls, nor should any of such explanations be
regarded so. Sincerely speaking they are plausible, because there
is every possibility that a single error may very naturally trace
its causes and sources to more than one. Besides, dealing with the
errors of a human language is not an easy job.

Now let us examine and explain the errors caused by mother
tongue influences.

3.1 Interlanguage Errors

Interlanguage errors here refer to the exhibition of the
influence of the learners' mother-tongue (Nepali) sentence
structures on that of the target language. Hence the need to
examine and explain the influences of the Nepali sentence
structure on the target language.

The review of literature in this area shows that earlier the
contrastive analysts thought the mother-tongue interference to be
the major source and cause of learners' errors, and also the
difficulty in learning the target language. But now it is
considered only one among the various other sources and causes
of errors.

In the following examples where there can clearly be seen the
influences of Nepali structures, we observe the word order –
 auxiliary + V stem for V stem with/without -s morpheme
depending on the number of the subject at noun phrase (see Table 2, iii).

We are both read. He is practice. I am live on my
village. Here are many people call in Nepali. I am
study PCL I year.

I think this phenomenon can be explained in terms of the
meaning of am, is, are in Nepali - hnu/chhu, chha/ho,
chhan/hun / chhaun / haun respectively. When the Nepali
learner finds these equivalents in English, he finds no reason to
add the -s morpheme to the verb stem to singularize where
necessary. The answer to the why of this sort of error may be the
lack of systematic and step by step practice of various linguistic
items in a context.

The sentential word order in Nepali is S + O/C + V, whereas
in English it is S + V + O / C. The influence of Nepali SOV
sentential word order is vividly seen in the following examples
(see Table 3):

Village better than city is. They hard read.

In English, the modifier many is used with countable nouns,
and much with uncountable nouns. But in Nepali there is only one
word dherai for both these noun categories. The following deviant structures (see Table 5) can be explained in terms of such interference of Nepali.

There is many developments. Nepal has too much villagers.

The following examples (see Table 9) seem to suggest us the effect of the word for word translations from Nepali into English. The words/expressions such as friend country (for friendly country), very best (for very good), and beauti temple (for beautiful temple) are probably the translations of Nepali mitra desh, dherai ramro, sundar thaun respectively. This process seems to suggest that the learner first thinks in the mother-tongue (Nepali), makes a sentence and then attempts to translate it mainly by supplying the English equivalents. This is what the learner seems to have followed in his system of language learning.

The mother-tongue influence (that of Nepali case endings - ma, ko, etc) is observed in the use of prepositions, such as on, in, at etc. (Table 6) in the following examples:

They believe on the religion. I go in bus. He goes at home.

The Nepali equivalent for these - 'on', 'in', 'at' - is 'ma'. Therefore, the learner seems to be confident as long as he is using the English equivalents of Nepali -ma. He might have thought that they are synonyms, and naturally they can be used interchangeably. This may be an indication of the learner's lack of exposure to standard English.

The English word for Nepali 'bata' is 'from'. As dominated by the Nepali 'bata' word concept, the learner fails to see the inherent limitations of the word 'from' in English. As a result, he goes on to produce the following deviant structures in English (see also Table 6):

I am satisfied from my campus. I go to home from bus.

The Nepali equivalent for English handsome (for masculine gender) and beautiful (for feminine gender) is 'sundar'. As an obvious example of mother-tongue (Nepali) influence on the target language, we may cite the following example (see also table 8):

His face not very beautiful.

That apart, let us consider the following sentence by translating it into Nepali:

My town 25% education is = mero nagarma 25% shiksha chha.

This is as good an example of word for word translation from the Nepali word order as any other. Here the learner seems to be in need of a much more rigorous practice in English word order keeping in view the basic differences between two structures.

Apart from these influences in sentential word order, now let us consider those in phrasal word order as in the following examples (see also Table 3):

My campus name .... = mero kyamapusho nam ....

Our village near .... = harmro gaun najik ....

So is the case with the following example also (see also Table 2):

Our village in road .... = harmro gaunma sadak ....

We believe these are very vivid examples showing the learners' mother-tongue (Nepali) influences in the target language. I have analyzed the obvious influences, but have not delved into the complications of contrastive analyses.

Second, I attempt to take up the intralingual errors for explanation as follows.

3.2 Intralingual Errors

I make the attempt to pick up, from the learners' language data, those errors which basically reflect the general characteristics of rule-learning of the target language. Unlike the errors that result from the influences of the learners' mother-tongue (Nepali), these errors result from the influences of one rule in another within the target language itself. Therefore, such errors have been classed as intralingual errors.
Richards (1973:172) has sub-categorized these errors into overgeneralization, ignorance of rule restrictions and incomplete application of rules. However, since all such errors do reflect the characteristics of target language rule-learning directly or indirectly, we attempt to explain the cause and sources of all such errors under the sub-heading overgeneralization.

3.2.1 Overgeneralization

Jacobovits (quoted in Jain 1973:174) defines overgeneralization as "... the use of previously available strategies in new situation ... In second language learning ... some of these strategies will prove helpful in organizing the facts about second language learning, but others perhaps due to superficial similarities will be misleading and inapplicable."

Richards (1973:174) defines "overgeneralization covers instances where the learner creates a deviant structure on the basis of his experience of other structures in the target language."

Now, let us examine the following deviant structures from the corpus of the learner language data (see also Table 5):

One the happy in company with him. the most of the peoples live in valleys and plains. My village is the Bhaktapur. Hari Kumar reads in the class ten. So the Nepal is very poor country.

These deviant structures suggest the overgeneralization of the rule-learning of the article use and the pluralizing of nouns. As per the general rule, the definite article 'the' is used with both singular and plural nouns in all genders. It is used, among others, before nouns of which there is only one, e.g. the sun, the moon etc. But the learner overgeneralizing the rules uses the article before happy, most, Bhaktapur, class, Nepal. Similarly, he knew that nouns are pluralized by adding -s/es morphemes, but he did not know the noun 'people' is not pluralized in the sense he is using it. This is an exceptions to the general rule. But this is overgeneralized here. In the same way, he knew that the superlative degree (i.e. most here) takes the article 'the' but did not know that no 'the' is used before 'most' if it is followed by a plural noun.

Le us consider a few more examples (with reference to Table 5):

Our village is a old tree. I walk a hour for home.
They bought a electricity. He read a news.

Among the indefinite articles, 'a' is used before singular count nouns starting with a consonant letter or sound and 'an' is used before singular count nouns that start either with any one of the vowel letters (a, e, i, o, u) or a vowel sound, such as the word 'hour'. The learner seems to be attempting to reduce the target language rules to a simpler system. In this attempt he has no other choice than to overgeneralize the target language rules of article use. The learner seems to have kept in mind only one point that where there is a state of indefiniteness, articles 'a' and 'an' can be used interchangeably despiting the rules of count/uncount, consonant/vowel and that of singular/plural. The count/uncount generalization is further illustrated by these examples (refer to Table 5):

There is many developments. Nepal has too much villagers.

It seems there is confusion between 'many' and 'much' and this has further worsened the confusion between count and uncount nouns. Not all nouns are pluralized, (not all nouns take the -s marker).

The deviant structure 'They feeling all person relation brother' (also refer to Table 2) is the product of the generalization that all members of the class verb in English are either transitive or intransitive, and for the progressive aspect, they are marked with -ing on the surface structure (Jain 1973:196). But apart from the most common class of copula or linking verb, there are other two main classes: (a) current copulas : appear feel (n.) etc., and (b) resulting copulas : become (n), get etc. which are commonly used with adjective phrase/noun phrase (Quirk et.al. 1973:352-353).

Referring to the avoidance of errors resulting from overapplication of restricted generalizations, Jain (1973:197) suggests the learner to bring the latter in 'one-to one correspondence with the facts of English'. His suggestion for the
lack of second language teaching situation is that it is not only the learner who is engaged in the 'reduction strategy aimed at learning economy' but all other components, such as 'teaching materials, teaching techniques, popular school grammars, teaching and learning goals.' All these components are on their attempt to bring about learning economy through reduction of the second language along one dimension or another. Limited vocabulary, limited structures, abridged and simplified texts, simplified school grammar books are attempts in the same direction. Concluding he says: 'simplified generalizations would seem to be build into second language teaching situation' and that such generalizations would not 'truly reflect the nature of the second language', however they would be taken as 'a helpful teaching device'. As part of the previously learnt rule generalization process or that of language transfer (i.e. interlanguage), Richards (1973: 175 - 76) suggests the possibility of explaining the learner's errors in the use of prepositions and articles in terms of analogy, and sometimes, in terms of rote learning. Let us then examine the following examples (see also Table 6):

 usage  instead of  '∅',  'in',  'since',  'at',  'to'

farmer  for  do field work.  He  is  for  the campus.
Nepal  free  for  2007 BS.  I  am student  for  college.  My
friend  goes  to school  for  study.

These deviant structures suggest that the learner is using the preposition  'for'  in the context it does not fit in. The same could be said with regard to others in the same Table. Apart from analogy or rote learning, the sources of these errors might be the existing teaching/learning environment, the sociolinguistic and psycholinguistic situations, the teaching material and so on.

The language data below

There sanitation is very  best.  My all friends are
\textit{best}.

break the rule restriction on the use of adjective, that is when the noun is not compared either with two or among more than two, neither comparative nor superlative degree of adjective can be

used. This might be the result of the learner's lack of exposure to this language item in a context.

Third, I take up the developmental errors in the effort to explain the causes and sources of grammatical errors.

3.3 Developmental Errors

We saw that the intralingual errors were related to faulty rule-learning processes within the target language at various levels. But apart from these, within the target language itself, there is another class of errors deriving from 'faulty comprehension of distinctions between or among the various language items' (Richard 1973: 178). However, we cannot, and I believe, we should not, compartmentalize these error classes, because both these - intralingual and developmental errors - germinate from the processes of target language rule learning.

I attempt here to illustrate and explain these developmental errors following Richards (1973: 178) under the subheading - false concepts hypothesized.

3.3.1 False Concepts Hypothesized

First, let us examine the errors in tense use as in the following language data (see Table 2):

\textit{Here} King Birendra ruled all over the Nepal. \textit{It is a backward village 20 years ago. Twenty years ago fertilizers are not available. They feeling all person relation brother. Many kinds of people living in Nepal. So heres are coming forest. There many children are playing at morning.}

The use of 'ruled' above indicates that the learner has missed the distinction between the simple past and the simple present. Generally speaking, simple past (verb infinitive + -ed) is used for past actions, basically completed in the past with or without a specific mention of the time in past, whereas the simple present expresses the timeless present action. Similarly the learner uses \textit{is} (the simple present) for past action. The verb thinking - under which come a number of verbs, e.g. think, feel (= think), realize, understand, know, mean, suppose, believe etc - is not normally
used in the continuous forms (Thomson and Martinet 1960 117-
118), whereas living, are coming, are playing (the present
progressive forms) are used instead of simple past for description
of events. It might also be the case of the learners’ failure to see
the distinction between the markers of the simple past (-ed) and
the simple present (-es) and that between other markers.

Further we notice (Table 5) confusion between: many and
much/ too; any and many; positive / comparative / superlative;
nouns and adjectives; indefinite articles a and an; and
adjective and adverb. Richards (1973: 178) notes that such errors
occur sometimes due to poor gradation of teaching items. And this
source of error, however plausible, looks most convincing with
reference to the sequencing and grading of the teaching items of
the learners in question.

The learners’ hypothesizing the false concepts continues
further with the wrong choice of lexical items, failure in subject
verb concord, and the misuse of prepositions.

As described in Table 8, the learners’ wrong choice of lexical
items shows their failure to distinguish between: improve and
improve; beautiful and handsome; lives and situated; side and
part; mountainous part and Himalayan region; sitting and living;
education and literacy, shortage and shortage etc. This inability
to use these terms in their proper contexts might indicate the
faulty system of giving the practice of vocabulary build up, such
as not teaching the vocabulary through contextual use, but rather
teaching them by just giving their mother-tongue equivalents in
isolation. The latter is the usual practice in the Nepalese
classroom teaching situation.

The Table 4 language data show us the learner’s faulty
comprehension of distinctions between the heads and their
qualifiers in noun phrases, on the one hand, and between the
forms of head with/without -s marker, on the other. As a result
we find the absence of concord between subjects and verbs. For
eample, the errors in these structures

My best friends is Ramesh Thapa. Ramesh read
textbooks. Dashain and Bhaitika is our festival.

are perhaps due to the poorly prepared teaching items, on the one
hand, and the absence of various graded and contextualized
exercises, on the other.

Our personal experiences as learners of English as Foreign
Language (EFL) have shown that mastery over, for example,
prepositions comes more than anything else through a continuous
reading habit of a variety of standard reading materials.

Further examples of faulty comprehensions of distinctions can
be seen in the use of syntactic devices such as hence, so, an, before
and the like (refer to Table 7).

The faulty comprehension of distinctions continues with the
confusion between: place relatex, such as here and there;
between there as place relater and there as grammatical word;
between the enumerators so and hence; between the symbols (&,
+) and the logical connector and. The causes and sources of these
errors may be, first, the absence of focus on syntactic devices in the
teaching material; second, the absence of expository prose writing
exercises including that of paragraph writing; and third, the
rather exam-oriented classroom activity strongly conditioned by the
university’s question pattern, exam pattern, answer marking
pattern, to mention a few.

The enumeration of errors on syntactic devices (Table 7)
suggests that the mere grammatical correction of the learners’
errors is not and cannot be the only reliable and fruitful approa-
ch to remediation. Hence the real remediation of errors would
require a further stage of reformulation of the learners’ prose
writing based on their reconstructed form of writing.

4. Implications of Errors in Nepalese Context

I have here purposely replaced the more technical and usual
expression the ‘remediation of errors’ by more general and unusual
expression ‘implications of errors’ for effectivity reasons.
Effectivity in action is a must at all these levels: language policy
making and planning, syllabus designing, teaching material
preparation, classroom teaching-learning, examination pattern,
question pattern, and marking system (evaluation system).
In Nepal we are not yet clear and specific at the policy level about:

- the role of ELT as foreign language or second language;
- need definition and objective definition and even method definition of teaching/learning English.

Certainly these lackings have far reaching implications on the students' English language proficiency level.

The remediation of errors, which is the reconstruction of the learners' deviant structures, has recently come up with the addition of a stage of reformulation (Levenston 1978) based on the reconstructed form. This is particularly so when the learner shows the lack of the techniques of writing paragraphs and expository prose. This was very much evident in the present study. Since my major focus was on the grammatical error analysis, I did not present here the samples of reconstructed and reformulated extended prose writing of the study population.

However, greater weightage should go to teaching/learning the prose writing techniques.

By the time our learners come to PCL I, they have learnt English Language for seven years (government schools) to thirteen years (private schools). Despite this, majority learners show very poor performance in English writing, why? One obvious answer could be poor prose writing exercise.

How much need based are our current text books, and teaching materials need to be examined in future. The present study was an examination of the English for Colleges (80% marks), the previous textbook at PCL I. If we look at Table 1, we find Tense errors with the highest frequency percentage, and if we look at the teaching items, dishearteningly, we find no single exercise on Tense items. Among others, this example shows the great gap between the learner-needs and the selection of teaching items.

Other important areas awaiting improvements are:

- classroom teaching/learning situation; and
- evaluation (the patterns of language examination, question setting and marking).

The present day reality of classroom teaching/learning of English Language is that most school teachers of English practise grammar-translation method. Without delay, this should be replaced by situational-communicative method. This applies, nonetheless, to campus classrooms also. Here a question may arise - are the teachers really trained and ready to practise this method? Another equally realistic aspect of this question is - large classroom size, psychologically defeated learners, poorly equipped classrooms. Gosh et al. (1977 : 109) observe, 'an awareness of grammatical phenomenon develops only when language is used in proper contexts (quoted in Yadav 1980 : 171).

Further, Yadava also emphasizes intensive practice in the classroom situation. But the relevant question here is - is the expected effectiveness in classroom teaching/learning possible without improving the current language classroom environment? Certainly, our long experience in teaching has shown that it is not possible. Beginning from the first national convention of TU teachers of English (1977) until now, these problems have been pointed out several times by several language teachers/experts, but the environment has gone bad to worse.

Another equally responsible factor to enhance quality language performance is the evaluation system including the patterns of examination, question setting and marking. We evaluate our language learners the way we do them in history or political science. Our examination system is not at all sensitive to the scientific nature of language teaching/learning and its performance evaluation techniques. Our system does not seem to be making any difference between history teaching/evaluation and language teaching/evaluation.

Hence, the error frequencies presented earlier (Table 1) seem to question the validity and reliability of language testing and evaluation system. "Language tests", Corder (1973 : 351) observed "are measuring instruments and they are applied to learners, not to teaching materials or teacher.... They are designed to measure the learner's knowledge of or competence in the language at a particular moment in his course and nothing else." But, as we have seen, our tests seem to address not the learners' language
ability but the teaching materials. This might be one of the reasons why our learners take to cramming bazar notes and cheating during examination. They do not see any meaning in classroom participation.

Finally, I see a number of research possibilities which, in broader terms, may be: contrastive studies of English and other major languages of Nepal; error analysis based on the learner's socio-psychological frame work; textual error analysis; development of EFL teaching/learning programmes and materials based on need definition and explanation of the specific varieties of English to speed up Nepal's tempo of development; assessment of present teaching materials and the teacher as main actor; and improvement on language evaluation system.

Bibliography


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2. Manpower and Resources

The general consensus of opinion among members of the Curriculum Committee is that we have an adequate number of trained and well-qualified linguists and language teachers specializing in various areas of theoretical and applied linguistics. The proposed Department of Linguistics therefore will receive the cooperation and active support of staff members from various language departments as well as expatriate linguists who are available. We are presently very encouraged by the interest and commitments made by individuals to help establish and run a full-fledged Department of Linguistics. This interest and commitment in many ways reflect the growing importance of linguistics as an autonomous discipline in major universities around the world.

This proposal is being made with the understanding that we will not require large financial resources for physical facilities or purchase of expensive equipment. Apart from the salary of staff at prevailing university rates per lecture and a modest grant for essential books and journals, the Department can function without any substantial investment by the University.

3. Outline of Curriculum in Linguistics

The Curriculum Committee at its meetings held on December 20 and 27, 1992 under the Chairmanship of Prof. Dr. Kamal P. Malla emphasized the need to study all available syllabuses including the old, the existing ones and those of foreign universities before selecting and designing the courses that can be prescribed for the proposed Department of Linguistics. However, following preliminary discussions on this important task, a tentative list of courses was suggested along with the names of teachers who are interested in contributing to teaching and development of these courses.

A. Core Content Courses

1. Phonetics and phonology
   - Dr. Ramawtar Yadav
   - Dr. M.P. Pokharel
   - Dr. T.R. Kansakar
   - Dr. S.K. Sthapit

2. Introduction to Morphology and Syntax
   - Dr. Y.P. Yadava
   - Dr. S.K. Sthapit
   - Dr. K.P. Malla
   - Dr. Abhi Subedi
   - Dr. Shanti Basnyat

3. Semantics and Pragmatics
   - Dr. S.K. Sthapit
   - Dr. N.K. Rai
   - Mr. J.R. Awasthi

4. Sociolinguistics and Psycholinguistics
   - Dr. Y.P. Yadava
   - Dr. N.K. Rai
   - Mr. S. Toba

B. Elective Courses

1. Advanced Course in Syntax
   - Dr. Y.P. Yadava

2. Historical and Comparative Linguistics
   - Dr. M.P. Pokharel

3. Applied Linguistics
   - Dr. S.K. Sthapit
   - Dr. T.R. Khaniya

4. South Asian Linguistics
   - Dr. Y.P. Yadava
   - Dr. N.K. Rai
   - Dr. M.P. Pokharel
   - Mr. S. Toba

5. Language Teaching Methodology
   - Dr. S.K. Sthapit
   - Dr. Abhi Subedi
   - Dr. J.R. Awasthi

6. Stylistics
   - Dr. K.P. Malla
   - Dr. S.P. Lohani

7. Lexicography
   - Dr. C.M. Bandhu
   - Mr. S. Toba

8. Dissertation/Field Linguistics

The committee also proposes to run short-term Post-graduate Diploma courses in Translation, Text Editing and English for Special Purposes.

4. Task Force

The Curriculum Committee decided to request the University to set up a task force of experts to study the feasibility of establishing a Department of Linguistics in Tribhuvan University and to make necessary recommendations for its approval by the Faculty Board and the Academic Council and implementation at the earliest opportunity.

TALK PROGRAMMES

Experimental analysis of Nepali sound system

Dr. Madhav P. Pokharel, senior faculty member at the T.U. Department of Nepali, gave a talk on Experimental Analysis of Nepali sound system at the Campus of International Languages on September 12, 1993. Dr. Pokharel's talk was based on his Ph. D. thesis, University of Poona, 1989.

Abstract

This thesis has four chapters: Chapter I is Introduction, Chapter II, Segment Structure which looks into the phonological and phonetic aspects of Nepali sound segments. On the phonological side, phonemicity of every segment is established on the basis of minimal contrast in the word initial position due to the fact that other positions are found to be irrelevant for the establishment of the phonemicity of segments in Nepali. Distinctive features of each such segment is specified in Feature Specification Charts (PP. 92-93.)
On the phonemic side all the vowels are defined only spectrographically and radiographically and the contoids with the help of spectrograms, palatograms and kymograms. At times they are further on specified by articulatory manoeuvres. In addition to these, segment redundancies are given in the form of Branching Diagram (P. 94) and Implicational Rules (Pp. 95-103) in order to handle them in the algebraic formulation of Segmental Constraints in the third chapter.

Chapter III: Sequential Constraints considers the effect of one segment upon another brought about by segmental permutations. This is highlighted in the form of Redundancy Rules (Stanley 1967) like if then conditions, positive conditions, negative conditions and rewrite rules. These conditions are further exemplified in the forms of tables (pp. 277-8) and C4: C1 relations (pp. 285). Each sequence is further abstracted in the syllable formula (C VC)\(^1\) which coincides with the Sonority Theory of Syllable Peak (Ladefoged 1982: 222) and is represented by a Diag (P. 213). This syllable formula is used to explain Reassignment (P.219), Pre-Semitrivial Gemination (P. 220, V4, 2. 2, pp. 248-9), and Consonantal Epenthesis between a nasal and a sibilant (P. 174).

Chapter IV is specifically designed for the suprasegmental feature length. Here, emergency in phonemic length is only cross-referenced and attention is mainly focussed on the phonetic length in that length is always kept along the dependent axis and several variables like manner of Articulation, Place of Articulation, Vowel Height, Number of Syllables, Gemination, Sequence, etc. are kept along the independent axis. Thus several conclusions are drawn. These spectrographic analyses in this chapter bring to light many interesting correlations to length.

All these findings in the analysis of Nepali sound system are compared to similar observations, findings and experiments carried out elsewhere in the world and conclusions are drawn accordingly. For this purpose our findings are compared to the observations of Vedic Pratihārya, Sicas and Panini on the one hand and acoustic and articulatory experiments done abroad on the other. In addition to these, our findings are compared to the light thrown by research to these, our findings are compared to the light thrown by research in the field of Indo-Aryan, South-Asian Typology and Language Universals. Keeping Nepali data along this spectrum conclusions are drawn.

**Licensing and syllabification in Dzongkha**

Mr. Stephen A. Watters, a doctoral candidate in linguistics at the University of Texas, U.S.A. gave a talk on "Licensing and Syllabification in Dzongkha" for the LSN members and invited guests on October 3, 1993. Mr. Watters is currently attending Tibetan language courses at the Campus of International Languages in Kathmandu.

HIGHLIGHTS OF THE 13TH ANNUAL CONFERENCE

The two-day 13th annual conference of the Linguistic Society of Nepal was held at the CEDA auditorium in Tribhuvan University, November 26-27, 1992. Some 110 linguists and academicians from Nepal and abroad attended the conference in which 21 papers were presented in syntax, applied linguistics, sociolinguistics and psycholinguistics.

The conference was inaugurated by Professor Durga Prasad Bhandary, Executive Director of CNAS.

The President of LSN Mr. Nirmal M. Tuladhar delivered his presidential address stressing the need for setting up a Department of Linguistics in T.U. system and highlighting the role played by LSN in the Nepalese academic milieu.

The Secretary-Treasurer of LSN Mr. Chandra Prakash Sharma welcomed the guests and participants to the conference.

The following is a quick glimpse at the titles of papers read out during the conference.

**Session I: Sociolinguistics and psycholinguistics**

1. Thomas Cox: Badi Code Language
2. Balchasar Bickel: Rin Cekma Achom Pogyu: The Possessivus Afectus in Belhare
3. Harihar Raj Joshi: Modes of Greeting Among the Newars

1 Dzongkha is the national language of Bhutan. It is a Tibeto-Burman language closely related to other Tibetan languages, and in fact, some consider it to be a Tibetan dialect.
President Address of the XIIIth Annual Conference of the Linguistic Society of Nepal on November 26, 1992.

Nirmal M. Tuladhar
President of LSN

Mr. Chairman
Members of the Society
My honourable Gurus
Ladies and Gentleman,

For the last twelve years the Linguistic Society of Nepal has been trying to convince Tribhuvan University to set up the Department of Linguistics. The former half a dozen presidents tried their might to sell the ideas during their tenure. The preceding president came up with a brilliant idea. He put it into action. We remember that at the Eleventh Annual Conference after the presidential address he read out and Presented the then Vice Chancellor of Tribhuvan University the application signed by all the linguists requesting him earnestly for the department. Last year at the Twelfth Annual Conference, not to our surprise, we learned that the application got lost. Sometimes once is enough. But the 12-years-waiting is more than enough. Let's forget about the department within this University. It has let us down. We have been hurt. Let's get out of the syndrome of expectancy.

During the last 12 years our Society has been able to organize the conference every year on the same date and place. This has been possible only because of professional obligation and commitment of the members of the Society. This gathering is the projection of their interest to share ideas, experiences and information about the current trends in linguistics.

Linguistics is one of the disciplines which has undergone dramatic changes within the last two decades. Questions we raise today are not all those the traditional grammarians and structural linguists would raise. If linguistics is no longer what it was once, its relation to other disciplines has also changed. The problems of linguistics are also those of anthropology, sociology, philosophy, education, gender studies, environment science, political science and development studies.

Today, our fellow citizens of smaller language groups and of even lesser known language groups wish to have their languages revived, expanded, broadcast and telecast. They are highly motivated to have an alphabet devised, literature published and literacy promoted for the use of materials on health care, agriculture, nutrition and sanitation in their community.

The greater means of unity though a people's language is, it is the greatest hurdle in the multilingual country like Nepal. People of smaller language groups living on the fringes of more dominant languages and cultures are looking for their own ethnic identity through their language in the wider culture. Whether spoken by a dozen people or 45 million, each language has value and dignity. Each language is beautiful. It is natural like breathing that is preferred by its own speakers.

Let me wind up my little speech now. More will follow at the 14th Annual Conference on November 26, 1993.

Thank you.
Linguistic Society of Nepal

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2. Prof. Kenneth L. Pike
3. Prof. R.K. Sprigg
4. Prof. Werner Winter
5. Prof. Bernhard Koelver

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