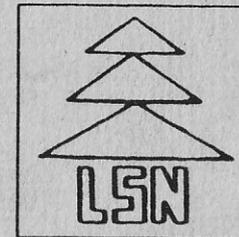


NEPALESE LINGUISTICS

VOLUME 10

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NEPALESE LINGUISTICS

VOLUME 10

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Contents

| | Page |
|---------------------------------------------------------------------------------------------------------|------|
| 1. Irony : A Pragmatic Study - Beerendra Pandey | 1 |
| 2. The Grammar of Onomatopoeia in Nepali - Madhav P. Pokharel | 10 |
| 3. The Feature System of Newari Segments - Tej R. Kansakar | 35 |
| 4. Referential Management in the Bhaktapur Newari Dialect Narrative Discourse - Daya R. Shakya | 67 |
| 5. The Real Interpretation of DHILI from the Gopalarajvamsavali - Kashinath Tamot | 91 |
| 6. The Chomskyan Revolution in Linguistics and Foreign Language Teaching - Dr. Sunil Kumar Jha | 100 |
| 7. Structure and Content in Sentence Development - WAYNE AMTZIS | 117 |
| 8. Error Analysis: Implications in Nepalese Context - Simon Gautam | 124 |
| 9. LSN Newsletter 1992-93 | 153 |
| 10. A list of Honorary and life members of LSN | 160 |

Irony : A Pragmatic Study

- Beerendra 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 addresser'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 addresser to think or do something just by getting the addressee to recognize that the addresser is trying to cause that thought or action. In the process of communication, the addresser's communicative intention becomes *mutual knowledge* to the addresser (*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 addresser and the addressed. When an addresser tries to say something which is at odds with the maxim of truthfulness, the addressed will assume that the maxim is being observed on another level, and will try to recover as an implicature some related proposition. 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 addresser 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 addresser 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 addresser 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'.

The second sentence violates the pragmatic condition of sincerity. Thanking somebody evokes an expression of gratitude. Here the lecturer cannot be grateful to the campus chief for the latter's action is detrimental to the former's career. The surface meaning does not add up. What the lecturer or the addresser implicates is the following:

"I have no reason to thank you because thanks are given for helping or doing something good for someone. On the contrary you have harmed me, so you don't deserve my thanks. Anyway, I want to make light of what you have done to me and don't want to sound bitter so I thank you ironically'.

The addressee, in this case the ex-campus chief, reads the text and is puzzled by the thanks given by the addresser. He shares this world knowledge with the addresser that thanks are given for doing something good to someone. He asks himself, 'How is it that the lecturer is thanking me, though I have harmed him? He means something else. He really does not want to thank but ridicule me for spoiling his confidential report.'

The butt of a verbal irony like the example above, as avers Tittler, must be 'a potential ironist as well, and one who already embod(ies) the duplicity necessary to identify that of the ironist' (18). An ironical utterance is thus based on what the addressers and the addressees know and experience; it reflects pragmatic fact and pragmatic opposition. Pragmatic opposition occurs when there is a surface mismatch between the experience and the appropriateness of the articulation about the experience (Roy 413). Thus linguistically irony can be defined as a discrepancy between pragmatic conditions and texlinguistic context, the implied meaning of which depends on the illocutionary act and the perlocutionary effect of which is to chide, purify, refine, scorn and 'send up'. It is not surprising, therefore, that irony is a major rhetorical device and the most precious and potent weapon of the satirist.

The twin processes of the encoding and the decoding of an ironical utterance are thus far more complex than the transmission of literal language. Irony is not only intended,

convert, stable and localized (Booth 7) but also that its interpretation involves four acts performed by the addressed: a rejection of literal statement; a search for alternative position; a decision about the position of the implied addresser; 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.

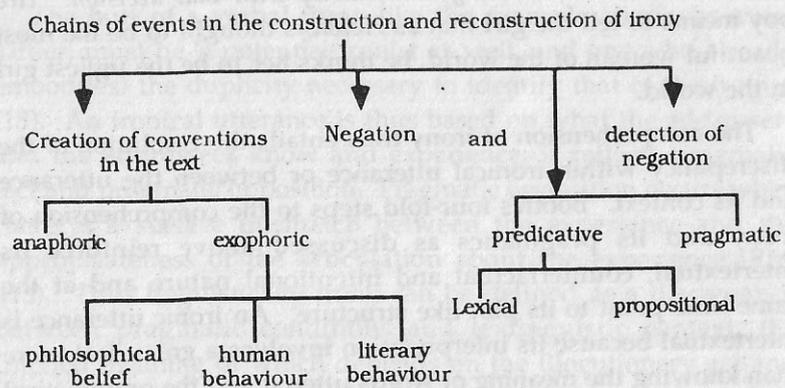
2. *Alternatives:* the boy is in love with the girl and it is the reality. No, it can't be, for he does not love her at all. Then perhaps he is crazy or stupid. No, he can't be. He's simply kidding.

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 ironical 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 ironical 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 (PI. 1380-96). The parties involved in the ironical discourse must accept a common frame of values: 'The ironical figure of speech cancels itself....., for the speaker presupposes his listeners understand him' (Kierkegaard 216). An

ironic utterance is apparently counterfactual in the sense that it negates the conventions created by the addresser. 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 addressed 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 reconstructed with meanings different from those on the surface. The addresser's first creating the convention, then negating it and the addressed'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:



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 addresser 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 'phonaesthesia' (Crystal 1988) or 'synaesthesia' (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-eⁿ/ form the phonemic inventory of onomatopoeia in Nepali. The following is the Nepali phonemic inventory according to Pokharel (1989):

| Oral Vowels | | Nasalized Vowels | | Consonants | | | | | |
|-------------|---|------------------|----------------|------------|----------------|---|----------------|---|-----|
| i | u | i ⁿ | u ⁿ | k | k ^h | g | g ^h | ŋ | h |
| e | o | e ⁿ | * | c | c ^h | j | j ^h | * | y s |
| | a | | a ⁿ | T | T ^h | D | D ^h | * | r |
| | | | | t | t ^h | d | d ^h | n | l |
| A | | A ⁿ | | p | p ^h | b | b ^h | m | w |

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 ^h arakka | galakka | gharakka | ηyAcca |
| casakka | chusukka | jarakka | jhasakka | |
| Tasakka | Thasakka | Dyamma | Dhakamakka | |
| tarra | tharra | darra | dharra | * |
| parra | pharra | barra | bharra | musukka |
| yAi ⁿ | 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 *akhaTTo* and *aragajja* are found in the data.
- ii) Aspirates (including voiced aspirates) do not usually occur intervocally. Only two occurrences *akhaTTo* 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) Nonreduplicative. The nonreduplicative type consists of a geminate at the final syllable.

- i) Glides (y,w, h) are not geminated.
- ii) Voiced aspirates (g^h, j^h, Dh, d^h, bh) 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^ha*, *gutt^ha*, and *araTT^ha* are found in exception to the generalization. When an aspirate is geminated the preceding component is deaspirated.
- iv) 'Grave' (Jakobson 1951) or 'noncoronal' (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 (*gujujja*, *gudu^hda*, *guDu^hDDa*) 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 | c | T | t | p |
| | (k ^h) | * | (T ^h) | (t ^h) | * |
| | * | j | D | d | * |
| | η | | | n | m |
| | | s | | r, 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.

blyAηηa, plyAtta, 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, k^hr, ... cr, cl, ...tr, tl, ...
 thl, th^r, ... pc, pr, pl, ps, p^hr, p^hl, ...
 rl, ...ls, lm, ...sl, sr, ηc, ηr, ηl, ηs, ηp^h,
 ...mr, ml, ms, ...nr, bl,

10. Examples

pokcyAkka, kakrakka, p^hyAklyAkka, phyAksyAkka, ak^hrakka, kucrukka, kaclakka, khutrukka, chwAtlyAkka, gut^hlukka, nit^hrukka, kwApcyAkka, kuprukka, kuplukka, k^hyApsyAkka, laphrakka, gup^hlukka, p^harlaηηa, jhwAlsyaηηa, j^halmalla, k^hwAslyAηηa, k^hwAsryAηηa, bujcyAηηa, ganjraηηa, phyAnlyAnna, j^hyAηsyAηηa, lyAηphyAηηa, lumruηηa, j^hyAmlyAηηa, j^humsuηηa, k^haηraηηa, cwAblyAηηa, blyAηηa.

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 *k^hr, p^hr, thr, thl* cluster occur in the data.
- iv) Among nasals /n/ makes a cluster only with /r/ and /η/ does not precede /k/.
- v) /s/ does not occur after coronals (c, T, t).

Summary of medial cluster:

| | | | | | |
|---|----|---|---|---|---|
| k | kh | | η | | r |
| c | | | | | l |
| T | | | | r | s |
| t | th | d | n | l | c |
| p | ph | b | m | | |
| s | | | | | |

E. Consonant in the Root Final Position

- i) All nasals (η, n, m), liquids (r, l) unaspirated (except *ph*) stops and the sibilant can occur in the root final position.
11. *T^haηT^haη, phanphan, chamcham, bharbhar, chalchal, lyAphylyAph, ThukThuk, kickic, KaTkaT, phatphat, t^hyApt^hyAp, laglag, gijgij, gaDgaD, gudgud, DabDab, chyAschus.*
- 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):

| Basic Oral Vocoids | | Derived Oral vocoid, | |
|--------------------|----|----------------------|---|
| 12. i | u | i | u |
| yA | wA | yA | o |
| | a | | a |
| | A | | A |

| Basic Nasalized Vocoids | | Derived Nasal Vocoids | |
|-------------------------|-----------------|-----------------------|-----------------|
| 13. i ⁿ | u ⁿ | i ⁿ | u ⁿ |
| yA ⁿ | wA ⁿ | e ⁿ | wA ⁿ |
| | A ⁿ | | A ⁿ |

14. Examples (oral)

kicca, kucca, kyAcca, kwAcca, kacca, kAcca, kwAcyAkka, kocyAkka, TiⁿT, cuⁿcuⁿ, cyaⁿcyAⁿ, cwAⁿcwAⁿ, cAⁿcAⁿ, TeⁿTeⁿ.

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

2.1.3. Syllable Structure

In onomatopoeia there are found both open (*kyAⁿ.kyAⁿ, piⁿ.piⁿ, kwAⁿ.kwAⁿ, cAⁿ.cAⁿ, cuⁿ.cuⁿ.thilipitili, kicipici*) 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. $kyA^n.kyA^n$, $pi^n.pi^n$, $kwA^n.kwA^n$, $cA^n.cA^n$, $cu^n.cu^n$.

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

16. *thilipitili*, *kicipici*, *kupu.kupu*, *akamakka*, *aragajja*, *kyAcyAkka*.

The vowel /a/ in onomatopoeia is never nasalized:

17. *harara*, *barara*, *k^halala*, *baba*, *k^halalla*

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. *blyAηηa*, *cablyAηηa*, *khatraηηa*

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. Dahal (1971) calls the base a 'phonaesthetic element'.

19. Monosyllabic: *chyAp*, *kac*, *phan*, *siⁿ*, etc.
20. Disyllabic: *chyApIyAη*, *k^hanraη*, *caTyAη*, *hukkAⁿ*, 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 ($hwAs$, $kyAc$, 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. $*hwAs = hwAssa$ | 22. $*kyAc = kyAcca$ |
| 23. $*pyAk = pyAkka$ | 24. $*phyAl = phyAlla$ |
| 25. $*pwAT = pwATTa$ | 26. $*phyAt = phyAtta$ |
| 27. $*khur = khurra$ | 28. $*sal = salla$ |
| 29. $*jhwAm = jhwAmma$ | 30. $*TyAη = TyAηηa$ |
| 31. $*Tan = Tanna$ | 32. $*kwAp = kwAppa$ |

Gemination is a common phenomenon even with disyllabic roots:

- | | |
|---------------------------|-------------------------|
| 33. $caTyAη = caTyAηηa$ | 34. $paDyAk = paDyAkka$ |
| 35. $pharlaη = pharlaηηa$ | 36. $caryAs = caryAssa$ |

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. *ghyAkghyAk*, *kyAckyAc*, *ThaηThaη*, *phanphan*, etc.
38. *macakmacak*, *phatarphatar*, *palyAtpalyAt*, etc.

39. *kalyAṅmalyAṅ kalyAṅmalyAṅ, 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 ...piT = *piTiTiTi...Ti = piTiTTa.*

41. **gyAj. gyAj. gyAj...gyAj = gyAjyAjja.*

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, D^hasmas, jhalmal, kacmac, khalmal, calmal, Tasma, hatpat, laspas, Talpal, D^halpal, calbal, larbar, gaDbaD, c^hyAlbyAl, tulbul, Hickic, himk^him, dhark^har, ramj^ham, caTakpaTak,*

The canonical shapes of such onomatopoeic words are as follows:

43. (A) $C_1V_1C_2.C_xV_1C_2$ (B) $C_1V_1C_2V_1C.C_xV_1C_2V_1C_3$

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

| | | |
|-----------------|-----------------|----------------------|
| | A | B |
| 44. Base = | <i>*khal</i> | <i>jhilik</i> |
| Reduplication = | <i>khalkhal</i> | <i>jhilik.jhilik</i> |
| Consonantal | | |
| Dissimilation = | <i>khalmal</i> | <i>jhilik.milik</i> |

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: b: k^h: k, 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 ablated and reduplicated to make an onomatopoeic stem:

46. *nAknik, phAṅphuṅ, pAkpuk, haThuT, chATchuT, jhApjhup, phAsphus, ṅArṅur, dhArdhur, ṅAṅṅuṅ, TAmTim, TAmTum, gAiⁿguiⁿ, kAckuc, sAⁿksuⁿk, 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

Onomatopoeic 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 /wA/ in the first syllable:

| | |
|--------------------|------------------|
| 47. (A) Geminated: | (B) Nongeminated |
| a a a ... | a a a ...a |
| G = i i i ... +a | NG = i i i ...i |
| u u u ... | u u u ...u |
| yA yA yA ... | yA yA yA ...yA |
| wA yA yA ... | wA yA yA ...yA |

48. Examples

paTTa, paTaTTa, paTaTaTTa, paTaTaTaTTa, ...

piTTa, piTiTTa, piTiTiTTa, piTiTiTiTTa, ...

G = *husa, husussa, hususussa, husususussa, ...*

phyAtta, phyAtyAtta, phyAtyAtyAtta, phyAtyAtyAtyAtta, ...

kwAcca, kwAcyAcca, kwAcyAcyAcca, kwAcyAcyAcyAcca, ...

patpat, patpatpat, patpatpatpat, ...

piTpiT, piTpiTpiT, piTpiTpiTpiT, ...

NG = *phutphut, phutphutphut, phutphutphutphut, ...*
kyAckyAc, kyAckyAckyAc, kyAckyAckyAckyAc, ...
kwAckwAc, kwAckwAckwAc, kwAckwAckwAckwAc, ...

Emeneau (1969) and Masica (1991) seem to have classified the geminated 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:

| A | B |
|----------------------|--------------------|
| 49. <i>kyAc.kyAc</i> | <i>gyAj . gyAj</i> |
| <i>kut . kuti</i> | <i>gud . gudi</i> |
| <i>Tap . Tap</i> | <i>Dab . Dab</i> |
| <i>tap . tape</i> | <i>dab . dabe</i> |

In the data we do not find:

50. **gyAc.gyAc, *kyAj.kyAj, *gut.gut, *kud.kud, *Dap.Dap, *Tab.Tab, 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:

| A | B |
|----------------------|-------------------|
| 51. <i>Thuk.Thuk</i> | <i>Dhuk.Dhuk.</i> |
| <i>phat.phat</i> | <i>bhat.bhat</i> |
| <i>khap.khap</i> | <i>ghap.ghap</i> |

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. Base | = | *piT |
| Reduplication | = | piT. piT. piT.piTpiT |
| Deletion | = | piT.øiT.øiT.øiT.....øaø |
| Gemination | = | piT.iT.iT.....Ta |
| Output | = | piTiTi.....TTa. |

2.2.2.9 Constraints

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

| 53. Unpermitted | Permitted |
|---------------------|---------------------|
| <i>*ka.ka.kka</i> | <i>ka.kra.kka</i> |
| <i>*ku.ku.kka</i> | <i>ku.klu.kka</i> |
| <i>*kwA.kyA.kka</i> | <i>kwA.ksyA.kka</i> |

For other constraints see the inventories of vowels and consonants.

2.2.2.10 Formatives

In the derivation of onomatopoeic words certain formatives (like -i, -ti, -A-) are also used:

| | | | | |
|-------------|---------------------------------------------|------------------|---------------|----|
| 54. Base | -i | -ti | -A- | -a |
| <i>kic</i> | <i>kic-i.pic-i/kic.kic.ti</i> | <i>kic-A-kic</i> | <i>kic.ca</i> | |
| <i>phaT</i> | <i>phat.phat-i/phaT.phaT-ti/phaT-A-phaT</i> | <i>phaTTa</i> | | |

2.2.3 Grammatical Categories of Onomatopoeia

Onomatopoeic words are basically modifiers of verbs and verbals, that is, they are basically adverbials, however, derived words from an onomatopoeic stem are verbals (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 'phonaesthemes' (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 'onomatopoeic 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. **Thaη* = a sound due to sudden contact of a hard object against a metallic surface.
Thaη.Thηη = 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) 'nonreduplicated 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 geminating consonant is neither a liquid (r, l) nor the sibilant:

58. *pyAkka*, *pyAcca*, *pyATTa*, *pyAtta*, *kyAppa*, *guDuDDa*,
gududda, *ThwAηηa*, *jhwAmma*, *phananna*.
 59. *khurra*, *khululla*, *hwAssa*

But even in case of geminating 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*, *Dhuluk. muluk*, *latpat*, *lyAhphyAη*,
Dhasamassa,

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*, *kuklukka*, *phyAηlyAηηa*, *phyAηsyAηηa*,
hoksyAkka, *puklukka*, *baηcyAη.buηcuη*, *chwAtlyAηηa*.

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. *kAckuc*, *phAηphuη*, *sAⁿk.suⁿk*, *pATpiT*, etc.

3.6 Vowels

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

63. *Tiη.Tiη* 'sound of a small bell'.
Tuη.Tuη 'slightly louder sound of a bell'.
Taη.Taη 'bigger sound of bigger bell as in a shrine'.
TyAη.TyAη 'louder sound of a bell'.
TwAη.TwAη '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. *picicca* 'sound of turbulant stream of water coming from a small slit'
pucucca 'sound where turbulence is less, muzzle is round, and the area of the surface under impact is smaller and circular'.
pacacca 'viscous pasty material coming out of a bigger muzzle with relatively less force, hence with negligible sound'.
pyAcyAcCa 'imitation of viscous material covering irregular and oblique larger surface, there is no sound whatsoever'.
pwAcyAcCa '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. *Tiηηa* < *Tuηηa* < *Taηη* < *TyAηηa* < *TwAηηa*.

- 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*, *lupukka*, *puklukka*, *pucucca*, etc.

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

67. *silitta*, *picicca*, *cirikka*, *pilitta*, *pititta*, *lipikka*, etc.

c) /yA/ indicates obliqueness in the original shape of the object:

68. *pyAlyAtta*, *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*, *rwADyAkka*, *kwATyAkka*, *bwAdryAkka*, *phwAηlyAcCa*, *bwAηchyAηηa*, 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*, *TiηTiη*, *pitikka*, *gilikka*, *gujukja*, etc.

- B. *pwAtyAkka, gwAlyAkka, cyAsyAkka, cwAsyAkka, pyAlyAtta, pwAlyAtta, TwAηTyAη, TyAηTyAη, TwAηTwAη, pyAtyAkka, gyAlyAkka, gyAlyAkjja*, etc.

These different indications of size, shape, pitch, loudness, dimension, obliqueness, love, disgust and sudden change in shape and direction are symbolically extended in onomatopoeic 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. $\eta > m > n$.

72. *chaη.chaη* 'sound of a waterfall'

cham.cham 'sound of an anklet'

chan.chan 'sound of coins'.

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

73. *Taηηa* 'sound of striking a metallic drum with a stone'

Tamma 'tightness'

Tanna 'full (like an airtight football)'

74. *k^haηraηηa* (a) 'sound or situation of something becoming dry and crisp'

(b) 'be frightened and pale as if with fear'

k^hanraηηa 'sound of a plate or smaller object on a hard surface' (metallic sound)

k^hamraηηa '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: phanakka, phananna,*

B. *thrill: jhanakka, sanakka, hananna, jhananna.*

C. *tension: tanakka, tananna, Tanakka.*

D. *resonance: bhanakka, 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'

cwamma 'to kiss or immerse something into a liquid'

jhwamma 'to leap into water or onto a tree'

rwamma '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. *khululla* (flow of water),

phyAlyAlla (act of spreading fabrics in the air)

puklukka (to be uprooted with relatively no force)

phyAηlyAηηa (to be untidy and loose)

chwAtlyAηηa (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. *rwAiⁿyaⁿ* (act of drilling with an electric drill)

ryATTa (act of cutting with a saw)

karyAkka (sound or act of breaking of a twig')

gharyAkka (sound or act of opening a door)

ηaryAηηa (sound of a lion's attack)

cyArra (cry of a baby)

jarro (stiffness or hardness of ground or some object)

tararra (sound of water falling down a pipe)

kakrakka (being stiff with cold or fear)

budrukka (act of jumping)

khanraηηa (sound of some small metallic object onto a hard surface)

Usually liquids denote continuity and /rl/ denotes momentary turn; *kurukha* (breaking of a small wooden object), *kurlukka* '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. *khusukka* (whisper), *phusukka* (hissing), *bhusukka* (senselessness) *musukka* (depression of air due to a smile), *chwAssa* (touch unconsciously), *ηissa* (smile showing teeth), *jhussa* (disordered beard), *ThwAssa* (act of breaking a green chilli), *hwAssa* (bad breath or smell), *khoslyAηηa* (sound inside straw, hay or cornskin),

cyApsyAkka (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 an opening:

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

3.7.4 Africates

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

81. A. *kucucca* (stool under constipation), *kyAcca* (stepping on viscous mud or soft dung), *kyAckyAc* (repeatedly pressing)

B. *gujujja* (boiling of something like soft rice), *gyAjja* (soft mud), *gyAjgyAj* (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, k^h, p, p^h/ are found where the aspirates /k^h, p^h/ 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 akhrakka, jakhrakka, myAkhlyAkka*, etc.

B. *Bilabial lyAphryAkka, lyAph.lyAph*, 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 onomatopoeic geminates.

83. *khwAkka* (cough), *ghyAkka* (dogbite), *nyAkka* (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), *wAkka* (vomitting), *kukrukka* (crouching position), *nyAkIAkka* (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), *lyAppa* (to lick something at a single action), *happa* (to feel extremely hot), *ghaplakka* (spilling out something due to the sudden upside/down position of a container), *ghapakka* (to cover a pot with a lid), *sapakka* (well ordered)

b) Acute

i) Dental stops /t, t^h, 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), *lyAtta* (smearing or pushing greasy or slushy or soft substance), *hwAtta* (coming out of a soft substance suddenly)

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

87. *guttha* (to be angry), *guthlukka* (convex cheeked), *lothryAkka* (to be exhausted).

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

88. *kaTaTTa* (sound caused by the friction of two wooden planks), *khaTaTTa* (boiling thick milk), *caTaTTa* (sound of burning straw), *piTiTTa* (sound of roasting corn), *maTaTTa* (sound of goat)

89. *guDuDDa* (sound of hoofs)

90. *araTTha* (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

kirra (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)

- gharra* (sound of a drawer)
garra (sound of falling down of a wall)
 94. *tarra* (sound of flowing water along a considerably narrow surface)
tharra (vibration of a machine)
darra (vibration or sound of a downpour of rain)
dharra (sound of falling milk)

Usually aspirates denote larger size or area, less number of units, more loudness and less pitch.

5. Functions

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

95. *hissa*, *khitta*, *khititta*, *galalla*, *musukka*, *musumus*, *kicca*, *ηicca*, *khitkhit*, *khitititta*.

Each of the word in (95), is a modifier of the verb *hAⁿs* '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 of onomatopoeia are adverbials, there are derived nominal, adjectival and verbal onomatopoeic words.

96. **Verbs:** *akmakinu* (to be puzzled), *kakrinu* (to be numbed), *kiccinu* (to be under pressure), *kocnu* (to press into a volume), *gijinu* (to joke), *ηyAknu* (to kick down), *cyAtnu* (to tear), *camkinu* (to shine), *cimlinu* (to close eyes), *copnu* (to ringe), *chapkAunu* (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), *ghuTko* (potation), *ghiDghiDo* (last wish), *ηyAηro* (mumbling person), *cuDki* (sound of two fingers), *ciro* (a slice of cucumber, etc.), *casiko* (shock),

cuski (sip), *chanak* (hint), *cher* (diarrhoea), *jhapki* (nap), *jhimko* (wink), *Turre* (diarrhoea), *phirki* (churn), *DwAη* (drum), *tapkeni* (dripling), *thuk* (spit), *dhipri* (lamp), *dhAro* (tap), *pacakA* (syringe), *phyAk* (hemisphere), *surpo* (sip) *hussu* (unconscious).

98. **Adjectivals:** *gilo* (soft), *khallo* (neither salty nor sweet), *khasro* (rough), *cimro* (small eyed), *cup* (silent), *chuske* (one who likes to tickle others), *Dhusse* (foggy), *darke* (heavy rain), *poTilo* (well nourished), *paDke* (bursting), *phyAηlo* (torn), *bhukke* (convex cheeked).

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.

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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 syllabicity 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 1.

| | Consonant | Glides | Liquids | Vowels |
|-------------|-----------|--------|---------|--------|
| Consonantal | + | - | + | - |
| Vocalic | - | - | + | + |

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 CVCV 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 CVCV 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:

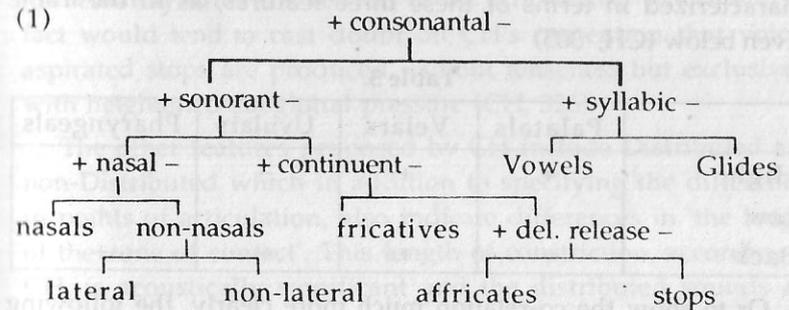
Table 2

| | Vowels | Nasals Liquids | Glides | Obstruents |
|-------------|--------|----------------|--------|------------|
| Sonorant | + | + | + | - |
| Syllabic | + | - | - | - |
| Consonantal | - | + | - | + |

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:



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 strictures 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 strictures cannot be specified on identical grounds, both in the manner and location of such strictures. 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 3.

| | Palatals | Velars | Uvulars | Pharyngeals |
|------|----------|--------|---------|-------------|
| High | + | + | - | - |
| Low | - | - | - | + |
| Back | - | + | + | + |

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

| | |
|-------------------|-------------------|
| (2) Vowels | Consonants |
| 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.¹ 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 air-flow; 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 [Continuent] 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, ingressesives 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 4.

| Obstruents | | | | | Liquids and Nasals | | |
|----------------------|----|----|----|----------------|---------------------|----|-----|
| p | t | c | k | | m | n | (ŋ) |
| ph | th | ch | kh | | mh | nh | |
| b | d | j | g | | | l | |
| bh | dh | jh | gh | h ² | | lh | |
| s | | | | | | | |
| (r, rh) ³ | | | | | | | |
| Glides | | | | | Vowels ⁴ | | |
| w | | y | | | i | | u |
| | | | | | e | | o |
| | | | | | ɛ: | ə | |
| | | | | | æ: | | |
| | | | | | → a → | | |

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 /ə/ 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:

Table 5.

| | | | | | | |
|-------|---|---|---|---|---|---|
| | i | e | a | ə | o | u |
| High | + | - | - | - | - | + |
| Low | - | - | + | + | - | - |
| Back | - | - | - | + | + | + |
| Round | - | - | - | - | + | + |

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 /i:, e:, ε:, æ:, a:, ə:, o:, u:/ 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 /æ/ from /a/ 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]:

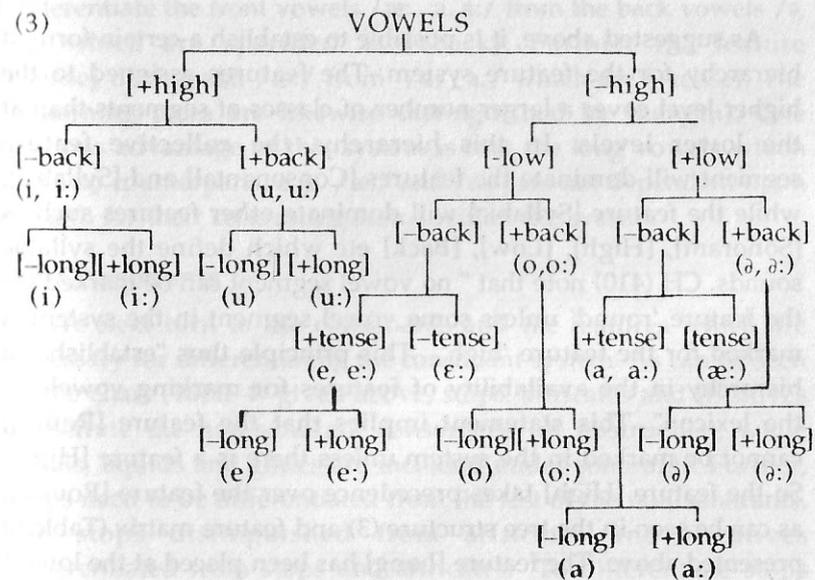
| | | | |
|------|-------------|------------|------------|
| | High Vowels | Mid Vowels | Low Vowels |
| High | + | - | - |
| Low | - | - | + |

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 height⁶. Thus /e:/ could be [+tense] and /ε:/ specified as [-tense] since both are [-high, -low] and hence not distinguished in terms of the features high and low. Similarly, /a/ and /a:/ can be assigned the feature [+tense], and /ə/ and /æ/ specified as [-tense]. This solution would allow us to leave /a/ and /a:/ as [-back] and still contrast with /æ/, while /ə/ and /ə:/ specified as [+low] could still contrast with the vowels /æ/, /a/ and /a:/. This grouping of vowels and the feature specifications assigned to them can be represented in a tree structure such as the following:



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 : 4). 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

| | i | i: | e | e: | ɛ: | æ: | a | a: | ə | ɜ: | o | o: | u | u: |
|----------|---|----|---|----|----|----|---|----|---|----|---|----|---|----|
| Syllabic | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Sonorant | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| High | + | + | - | - | - | - | - | - | - | - | - | - | + | + |
| Low | - | - | - | - | - | + | + | + | + | + | - | - | - | - |
| Back | - | - | - | - | - | - | - | - | + | + | + | + | + | + |
| Round | - | - | - | - | - | - | - | - | - | - | + | + | + | + |
| Tense | + | + | + | + | - | - | + | + | - | - | - | - | + | + |
| Long | - | + | - | + | + | + | - | + | - | + | - | + | - | + |

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, i:/ and /u, u:/ from the rest of the vowels. The front vowels /i, i:/ are [-round] and [-back], distinguishing them from the back vowels /u, u:/, which are [+round, +back]. While /i/ and /u/ are [-long], /i:/ and /u:/ are [+long]. Thus the high vowel is pair-wise distinct from every other high vowel. The mid vowels /e, e:/, /ɛ:/, /o, o:/ are distinguished from all other vowels by the feature combination [-high, -low]. Within the set of mid vowels, /e, e:/ are [+tense] and the rest are [-tense]. Again, /ɛ:/ specified as [-back] is distinguished from /o, o:/ which are [+back]. The remaining pairs are distinguished by the feature [Long]. The low vowels /æ:, a, a:, ə, ɜ:/ 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:/ from the back vowels /ə, ɜ:/ which are specified as [+back]. Further, the feature [-tense] distinguish /æ:/ from /a/, a:/ 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:/ and /ɛ:/, 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 [Continuent] 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

| | p | ph | b | bh | t | th | d | dh | c | ch | j | jh | k | kh | g | gh | s | h |
|-----------------|---|----|---|----|---|----|---|----|---|----|---|----|---|----|---|----|---|---|
| Abrupt release | + | + | + | + | + | + | + | + | - | - | - | - | + | + | + | + | - | - |
| Delayed release | - | - | - | - | - | - | - | - | + | + | + | + | - | - | - | - | - | - |
| Continuent | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | + | + |

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 alveopalatal 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] | [- coronal] |
| (blade of tongue raised) | uvular |
| dental | labial consonants |
| alveolar | tongue body consonants |
| palato-alveolar | glides |
| liquids | non-retroflex vowels |
| retroflex vowels | |
| [+ anterior] | [- anterior] |
| (Obstruction in front of | (no such obstruction) |
| palato-alveolar region) | Vowels (without |
| consonants & liquids | constriction in oral cavity); |
| with obstruction in front of | palato-alveolar |
| P-A region; | retroflex |
| labials | velar |
| dentals | uvular |
| alveolars. | pharyngeal. |

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

Table 8.

| | p | ph | b | bh | t | th | d | dh | c | ch | j | jh | k | kh | g | gh | s | h | r | rh |
|----------|---|----|---|----|---|----|----|----|---|----|---|----|---|----|---|----|---|---|---|----|
| Anterior | + | + | + | + | + | + | + | + | + | + | + | + | - | - | - | - | + | - | + | + |
| Coronal | - | - | - | - | + | + | + | + | + | + | + | + | - | - | - | - | + | - | + | + |
| | m | mh | n | nh | ŋ | l | lh | w | y | | | | | | | | | | | |
| Anterior | + | + | + | + | - | + | + | - | - | | | | | | | | | | | |
| Coronal | - | - | + | + | - | + | + | - | - | | | | | | | | | | | |

The features so far proposed however fail 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)⁷ 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

(which for 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 :

Table 9

| | p | ph | b | bh | t | th | d | dh | c | ch | j | jh | k | kh | g | gh |
|-------|---|----|---|----|---|----|---|----|---|----|---|----|---|----|---|----|
| HSP | - | + | - | + | - | + | - | + | - | + | - | + | - | + | - | + |
| Tense | + | + | - | - | + | + | - | - | + | + | - | - | + | + | - | - |
| | m | mh | n | nh | l | lh | r | rh | | | | | | | | |
| HSP | - | + | - | + | - | + | - | + | | | | | | | | |
| Tense | - | - | - | - | - | - | - | - | | | | | | | | |

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 (1963) 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 [\pm stiff vocal cords] vs [\pm slack vocal cords]; and [\pm spread glottis] vs [\pm 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 /ŋ/ from other nasals in terms of tongue height. For the production of /ŋ/ 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 :

Table 10

| | p | p ^y | p ^w | t | t ^y | t ^w | k | k ^y | k ^w | c | c ^y | c ^w | s | s ^y | s ^w |
|----------|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|
| Anterior | + | + | + | + | + | + | - | - | - | + | + | + | + | + | + |
| Coronal | - | - | - | + | + | + | - | - | - | + | + | + | + | + | + |
| High | - | + | + | - | + | + | + | + | + | + | + | + | - | + | + |
| Low | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Back | - | - | + | - | - | + | + | - | + | - | - | + | - | - | + |
| Round | - | - | + | - | - | + | - | - | + | - | - | + | - | - | + |

| | m | m ^y | m ^w | n | n ^y | n ^w | l | l ^y | l ^w | h | h ^y | h ^w |
|----------|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|---|----------------|----------------|
| 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/ [pa:] - dries (hab.)
 /pyaa/ [p^ya:] - is wet
 /pwaa/ [p^wa:] - stomach
 /kaa/ [ka:] - funeral horn; takes (hab.)
 /kyaa/ k^ya:] - expression of annoyance
 /kwaa/ [k^wa:] - cheats (hab.)
 /laa/ [la:] - saliva; have time
 /lyaa/ [l^ya:] - account
 /lwaa/ [l^wa:] - fights (hab.)
 /caa/ [ts a:] - feels (hab.)
 /cyaa/ [ts^ya:] - burns (hab.)

| | | |
|--------|----------------------|----------------|
| /cwaa/ | [ts ^w a:] | - kicks (hab.) |
| /ja/ | [dza] | - boiled rice |
| /jya/ | [dz ^l a] | - work |
| /jwaa/ | [dz ^w a:] | - 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 (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.

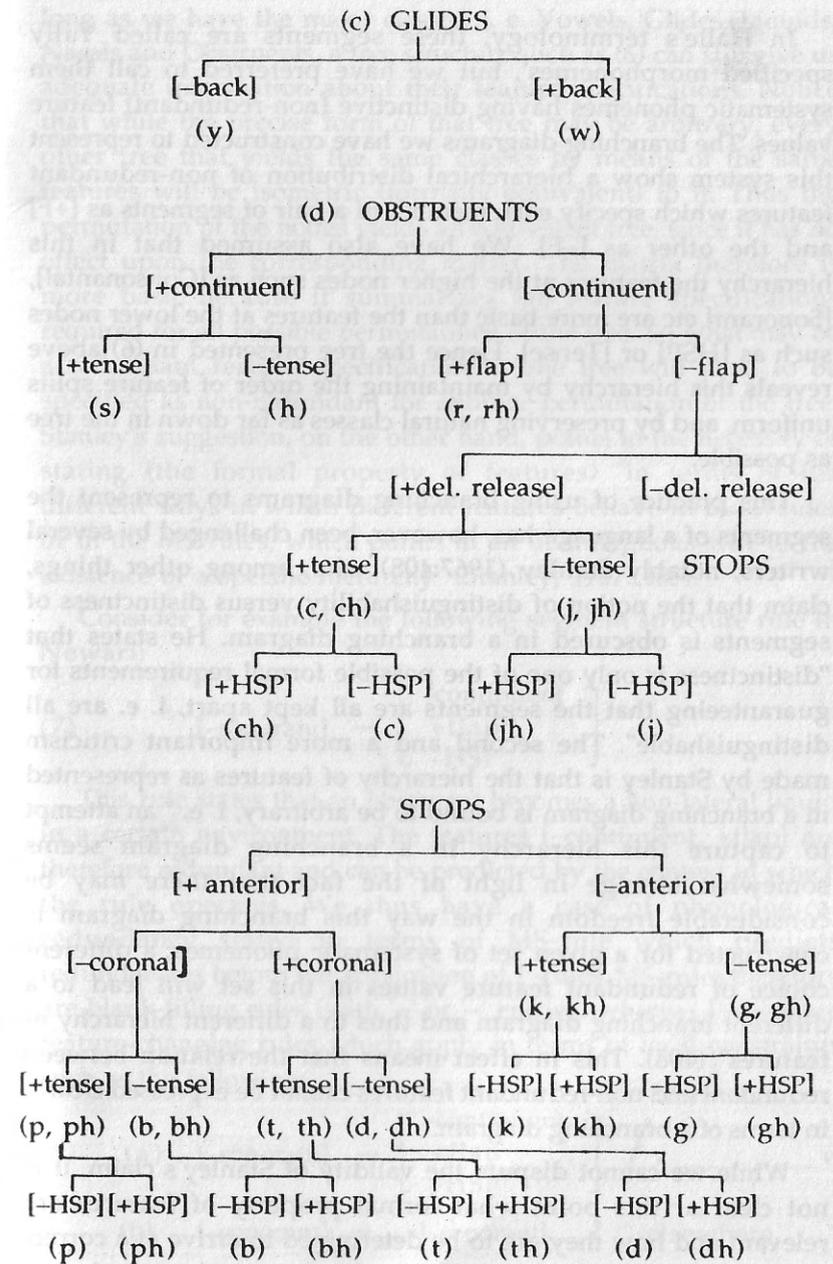
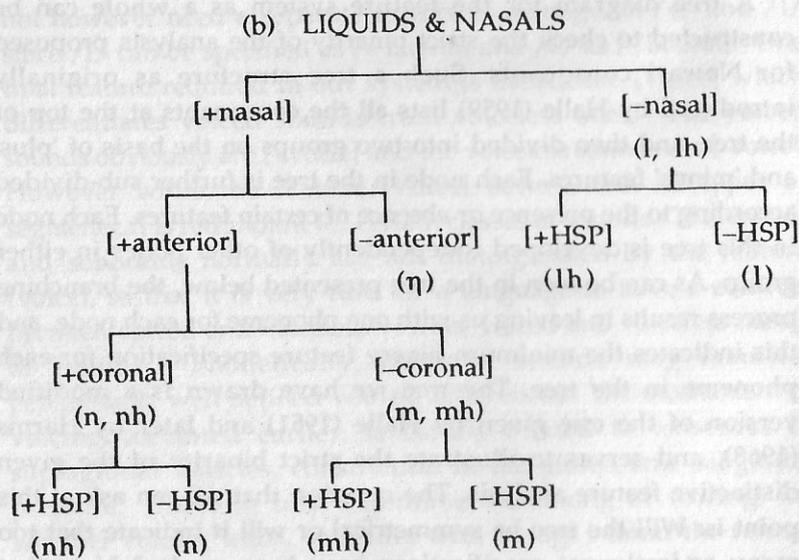
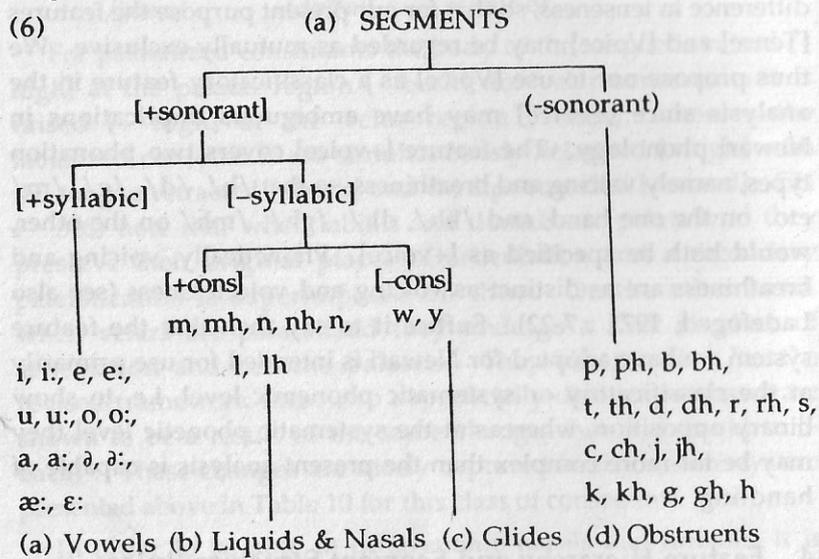
In order to be able to differentiate nasals and laterals, it is necessary to introduce the features [Nasal] and [Lateral]. We do not however need a separate feature to distinguish /r/ and /l/ since /l/ can be specified as [+lateral] and /r/ as [-lateral]. One final feature required in our system is the 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/, /mh/ 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:



In Halle's terminology, these segments are called 'fully specified morphonemes', 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:

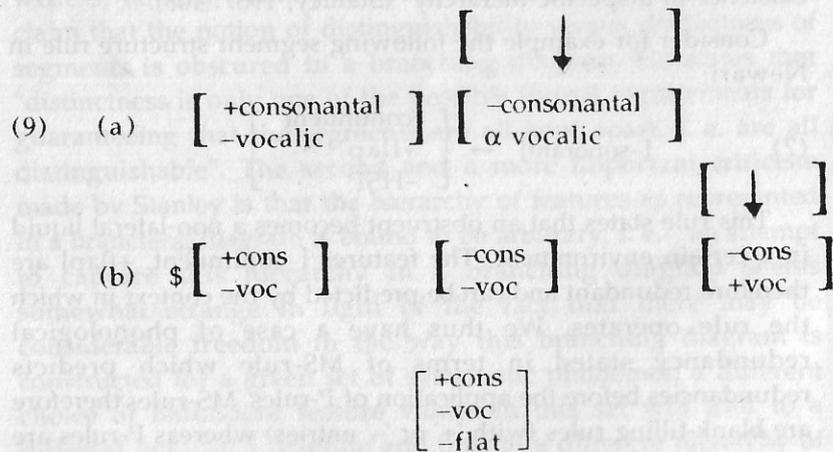
$$(7) \quad [-\text{sonorant}] \rightarrow \begin{bmatrix} -\text{continuent} \\ +\text{flap} \\ -\text{HSP} \end{bmatrix}$$

This rule states that an obstruent becomes a non-lateral liquid in a certain environment. The features [-continuent, +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:

$$(8) \quad (a) \quad [-\text{sonorant}] \rightarrow \begin{bmatrix} -\text{continuent} \\ +\text{flap} \\ -\text{HSP} \end{bmatrix} / \text{v} \underline{\hspace{1cm}} \text{v}$$

$$(b) \quad [-\text{sonorant}] \rightarrow [-\text{sonorant}] / \text{elsewhere}$$

It thus seems that the features in a classificatory matrix will have empty cells which no redundancy rule can fill in 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:



Rule (9a) states that a morpheme-initial consonant is followed either by a glide or a vowel, and Rule (9b) says that a syllable-initial consonant-glide (or non-lateral /r/) cluster must be followed by a vowel and never by another consonant. Suppose we take the forms /pwi/ and /ly a/ as possible morphemes in Newari and use the matrices given in (9). The two forms then can be specified as follows:

(10)

| | | | | | | |
|-------------|---|---|---|---|---|---|
| | p | w | i | l | y | a |
| Consonantal | + | - | | + | - | |
| Vocalic | - | - | + | + | - | + |

Apart from the other features not given here, we can see that /w/, /i/, /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:

(11)

| | | | | | | |
|-------------|---|---|---|---|---|---|
| | p | w | i | l | y | a |
| Consonantal | + | - | - | + | - | - |
| Vocalic | - | - | + | + | - | + |
| High | | + | + | | + | - |
| Back | | + | - | | - | + |

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

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 obstruent 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 /ɾ/. 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-mhə/ 'five persons' etc in Kathmandu are realized in Bhaktapur speech as [ŋa] and [ŋamhə] respectively.
4. The diagram here shows eight vowel qualities only, but all Newari vowels (except /ɛ:/ 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 /ə/ indicates that it ranges from mid-central to low back position. The analysis of Friedman et al. (1983) reveals that in most environments /ə/ is never fully as high as the norm for /e/ or /o/. The variants of /ə/ 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-ɛ:-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' (RGRR) or 'Distinctive Release' to characterize Maithili aspirated consonants.
8. Chomsky and Halle (1968: 382) quoting L. Lisker "On Hultzen's Voiceless Lenis Stops in prevocalic Clusters", *Word* 19, 1963.

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Referential Management in the Bhaktapur Newari Dialect Narrative Discourse¹

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1. Introduction

This paper describes how a speaker selects referents in Newari². 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, Pro 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, Nepal³. 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 [--]⁴.

2.3. Coding Categories

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

2.3.1 Numeral - 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 numeral⁵ 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 one-Cl man come-Pst A man came. | 2. kune manu wal-a down man come-Pst A man came down there. |
|-------------------------------------------------------------|-------------------------------------------------------------------|

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/*⁶ 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. mhiga: cha-ma manu: -na~ biha yAt-a yesterday one Cl man ERG marriage do- Pst A man got married yesterday. | 5. manu wal-a man come-Pst man came. |
| 4. wa manu wal-a DEM man come-Pst That 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. *wa* kA [mhiga: wa:-mha] *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 *wa* could refer to male, female, animal or insect who (/which) ever is known to the hearer from a Previous clause.

- (7) *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* wal-a
 one-Cl man come-Pst
 A man came.
9. *ale* mech-e phyet-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 identifies 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

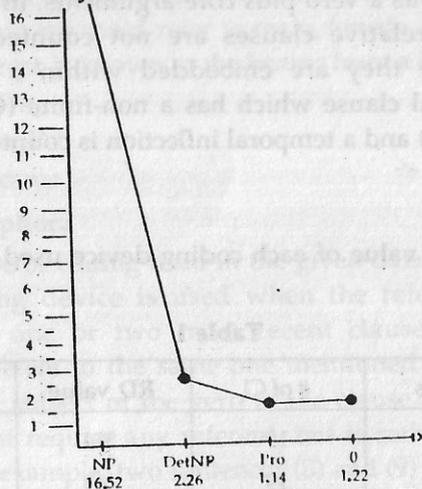
The mean RD value of each coding device used in the text is given in table 1:

Table 1

| Coding Devices | # of Cl | RD value | Mean RD |
|----------------|---------|----------|---------|
| NP | 19 | 314 | 16.52 |
| Det NP | 19 | 43 | 2.26 |
| Pro | 14 | 16 | 1.14 |
| Zero | 18 | 22 | 1.22 |

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 classifier⁷. The examples given below contain first mention new referents in the discourse: /*huri*/ 'old woman', /*khyA*/ 'goblin', /*ga-la*/ 'goiter' and /*mari*/ 'bread', as follows:

(10) Eps: 3 Cl: 6 Text
 thwa e kram-e cha-nu
 DEM EMPH way- LOC one day
 cha-ma huri cha-nu cha-ma tApA-ka~-nise
 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 huri-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 //
 DEM EMPH MS-LOC one-Cl goblin come-Pst
 A goblin came into that Marusatal.

(13) Eps: 6 Cl: 23 Text:
 ale wa huri-ya nhin-e: bhusyu-
 and then Det old woman-GEN day-LOC husk
 himu-yAu 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 referent⁸. 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 (CI # 8 in the text).

(14) Eps: 3 CI: 9 Text:

ale wa ga~la swa~u da-u-yA karana-e
and then 3sg goiter three CI COP-NOM-geN cause-LOC
sAp man kwatuya co~ukha: //
INTEN mind emberesing 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 CI: 17 Text:

thanka: wa-bale
arrive- NF come-TEMP

(16) Eps: 5 CI: 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. CI# 22 in the text) the use of *Pro* could have been confused with /tisA/ 'ornament' which was mentioned in the preceding clause (i. e. CI# 21 in the text). Thus the selection of *Det + NP* and *Pro* is a matter of avoiding the ambiguity.

(17) Eps: 5 CI: 21 Text:

tisA the~ ju: cwa~ guli~
ornament EVID become stay because

(18) Eps: 5 CI: 22 Text:

wAe loba~ wa~ wa ga~la: swa~ga:
3sg-GEN greed 3sgERG DEM goiter three-CI
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 CI: 15 Text:

uke~ wa khyA gurra tula
therefore DEM goblin ADV roll-Pst

(20) Eps: 4 CI: 16 Text:

anA wa buri dya~ cwa~
there 3sg woman sleep stay place-LOC arrive come-Pst
thA-e tha~ka: waA //
place arrive come=πst
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 /*Q*/ 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 Shakya 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 scenerio 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 *thwa* (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.

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Appendix 1

Text: *A story of the marusata: goblin*

E1 _____

1. nhApayAeyA maru sata: da: -bale /
early - GEN MS exist - TEMP
Once upon a time there was a rest house named Marusatal.
2. gable nise~ wa da-u kha //
when PP DEM exist - NOM COP
For as long as it has been in - existence.
3. able nise~ su~ manu: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
dyā-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

- cha-nu cha-ma tApAka~-nise wa-mA kha //
 one-day one-Cl far - ADV - PP come-NOM COP
 One day there was an old woman who had come a long way.
7. wa na wa e marusatale dya~ wanA //
 3sg also DEM EMPH MS sleep go-PD
 She went to stay in that marusatal
8. 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-Cl COP-NOM become stay-PD
 there were three goiters
9. ale wa gala wa~-u da-u -yA karana-e
 and then DEM goiter three- Cl COP-NOM GEN cause-LOC
 Because of these three goiters
 sAp man kwatuya co~-u kha: //
 INTEN mind embarrassing stay-NOM COP
 she was unhappy
10. ale wa siucA 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,
11. 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
12. bAs-yA~ cWA~ cAn-e chu jul-A //
 lodge do stay-NF night LOC what happen-PD
 while she was staying there some thing happend during the
 night.

- E4 _____
13. wa e maru satal-e
 DEN EMPH MS-LOC
 One goblin came into the MS
 cha-mA khyA wal-A //
 one-Cl goblin come-PD
14. khyA-tae-ke dhasA thau jAdu the~
 goblin-PL-COK COMP self- GEN magic Evid
 the goblin possessed a magical power
 nyA-u sakti dai-u
 ? power exist-NOM
 like that of spiritual power
 ju- yA cwan-A //
 become-NF stay-PD
15. uke~ wa khyA gurra tul-a //
 therefore DEM goblin ADV roll-PD
 He rolled down
16. anA wa buri dya~ cwa~
 there 3sg woman sleep stay place-LOC arrive come -PD
 and then the place where that woman was sleeping
 thA-e tha~ka: wal-A //
 place arrive-ADV come-PD
 He came there.
- E5 _____
17. thankA: wa-bale
 arrive -ADV come-TEMP
18. wa buri dya~ cwa~ thAe
 Det woman sleep stay place
 thaeka swal-a //
 like this look-PD
 When he arrived, he looked at the place where the old
 woman was sleeping.

19. wa buriy-Ake gu-u da-u
3sg oldwoman-COM which-CL exist-Nom
ga~ la: kha: //
goiter COP
20. wa ga~la 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
21. TisA the ~ ju: cwa~guli~
ornament EVID stay because
because it looked like an ornament,
22. 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
- E6 _____
23. 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 mAri pye-pA jwA~-u~ kha: //
husk-GEN cake four-CL take with-NOM COP
24. 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.
25. 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
26. 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 kept the cakes underneath that pillow
ta:le ta wantyau~ kha: //
underneath keep? COP
27. ale wa buri~ wa mAri Ni-pA na~
and then DEM woman DEM bread two-CL also
then that woman and the noth the cakes
wa khya-na~ gu-mA
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.
28. kayA: nA-e bil-a //
take-NF eat-INF give-PD
took it and ate it.
- E7 _____
29. na-e biy-A
eat INF give-NF
And then after eating
30. uki-yA palesA
DEM-GEN substitute
as a substitute,
lu~ yau mAri Ni-pA tA-e thakal-a //
gold GEN bread two-CL keep keep-PD
he left two golden cakes.

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 sAp yau~ 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
guuga~ la-ta
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-ti~
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
pillow,
the dyA~ thAe
place sleep place
gu-u phuNA ta:le
which-CI pillow keep underneath
in order to look for what she had kept underneath the
pillow,
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. guu 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

lu- ya-u mAri Ni-pA juy-a cwan-a //
 gold-GEN do-NOM bread two CI become-NF stay-PD
 but instead they had been replaced by two golden cakes

43. wa mari nayA aki~ na ascAry cAla //
 3sg bread eat-NF in that also surprise feel
 This also made her surprised.

44. wa mari jwa--na thau gAm-e lyA--an-a //
 DEM bread hold-NF SELF-GEN village-LOC return-go PD
 She went back to her village with those two golden cakes.

Summary of the Story

Once Upon a time there was a rest house named Marusatal and because it existed, travelling business people used to stop there for the night. Once an old woman came from far away to stay at Marusatal. This old woman had three goiters in her neck. She was unhappy because of these three goiters. She was clay seller and she could not return home on that day. So, she had to stay overnight at Marusatal. While she was staying there something happened. A goblin appeared at Marusatal and this goblin had magic spiritual powers. He went to the place where the woman was sleeping and looked at her. To him, the goiters that the woman possessed looked like an ornament. Because they appeared this way, he took them from her and put them on his own neck. This woman had brought four husk cakes for lunch and she had already eaten two of them and had saved the other two for the next morning. She had packed them in her sash, which she was using as a pillow. The goblin who used to live in the rest house took both these cakes and ate them. Then, as a substitute, he left two golden cakes in their place. When the woman woke up on the next morning, she felt very light, for she, no longer had the goiters on her neck. She was surprised and felt very happy. Then after washing her face, she started to check underneath her pillow to look for what she had kept there. She was thinking about the two cakes meant for breakfast. Suddenly, as she looked underneath, she saw that the cakes she had left were not there.

There were two golden cakes instead. This also surprised her. She then went back to her village with those two golden cakes.

Appendix II

| Cls | NP | VP | Coding |
|-----|------------------|-----------------|----------------------------------|
| 1. | MS | da-bale | NP |
| 2. | MS | da-u kha | P |
| 3. | manu | wani-bale | NP |
| 4. | MS, manu | cwA~ni | MS=NP manu=0 |
| 5. | MS | kha ni | Det+NP |
| 6. | huri | wamA kha | Num-CI NP |
| 7. | MS, huri | dya~ wana | Det+NP, huri +P |
| 8. | huri, kaku, gala | dau juyA cone | huri=Det+NP, kaku=NP, gala=NP |
| 9. | gala, huri | dau, cwau~kha: | gala=Det+NP, huri=0 |
| 10. | huri, che~ | wane makha | huri=Det+NP, che~+NP |
| 11. | MS | jula | Det+NP |
| 12. | huri | yAeta | huri=0 |
| 13. | MS, khyA | walA | MS=Det+NP, khyA=Num-CI NP |
| 14. | khyA, jAdu sakti | daiu juyA cwana | khyA=NP, jAdu sakti=NP |
| 15. | khyA | gwArra tula | Det+NP |
| 16. | huri, khyA | tha~ka walA | Det+NP, khyA=0 |
| 17. | khyA | wala | 0 |
| 18. | huri, khyA | thaeka swala | Det+NP, khyA=0 |
| 19. | huri, gala | dugu kha | Det+NP, gala=NP |
| 20. | gala, khyA, tisA | ju cwana | gala=Det+NP, khyA=P, tisA=NP |
| 21. | tisA | ju cwa~guli~ | NP |
| 22. | tisA, khyA, gala | | tisA=P, khyA=Pro gala=Det+NP |
| | sakti, kaku | tala | sakti=NP, kaku=N |
| 23. | huri, mAri | kha: | Det+NP, NP Num-CI |
| 24. | mari, huri | nayA: | Det+NP, huri=0 |
| 25. | mari, huri | lankA | mari=0, huri=0 |
| 26. | phu~NA | yA~tau | phu~ NA =NP |

| | | | |
|-----|------------------------|-------------------|---------------------------------------------------|
| 27. | huri, mAri, khyA MS | kha | huri=Det+NP, mari=Det+NP khyA=Det+NP, MS=NP |
| 28. | khyA, mari | nAe-bila | khyA=0, maru-i=0 |
| 29. | mari, buri | biyA: | mari=0, buri=0 |
| 30. | lu~mAri, khyA | tAe thakala | mari=NP, khyA=0 |
| 31. | MS | jula | 0 |
| 32. | huri | da~ bale | Det+NP |
| 33. | huri | cwana | Pro-REFL |
| 34. | huri | cwana | Pro |
| 35. | gala, buri | mare dhunkala | gala-NP, bori=pro |
| 36. | gala, buri | ascArya cAyA | huri=Pro, gala=Pro |
| 37. | huri | tAla | huri=0 |
| 38. | huri, khwA | sile dhu~kA | khwA=NP, buri=0 |
| 39. | huri | tayA | huri=Pro |
| 40. | huri | so bale | 0 |
| 41. | huri, mAri | maru | mari=NP num-Cl, huri=ProRE |
| 42. | mari | juyA cwana | Pro=0 |
| 43. | huri, mari | nayA ascArya cala | mari=Det+NP, buri=0 |
| 44. | mari, buri gA~ | lyA na | mari=Det+NP, buri=0, gA~=NP |

REFERENTIAL DISTANCE

| | NP | Det NP | Pro | 0 | Referents | SemanticR |
|-----|----|--------|-----|---|------------|-----------|
| 1. | 20 | - | - | - | MS | P |
| 2. | - | - | 1 | - | MS | P |
| 3. | 20 | - | - | - | manu | P |
| 4. | 2 | - | - | 1 | MS, manu | L, P |
| 5. | - | 1 | - | - | MS | L |
| 6. | 20 | - | - | - | huri | P |
| 7. | - | 2 | 1 | - | MS, buri | L, P |
| 8. | 20 | - | - | - | gala | P |
| | 20 | 1 | - | - | kaku, buri | L, P |
| 9. | - | 1 | - | 1 | gala, buri | P, P |
| 10. | 20 | 1 | - | - | che~, buri | L, P |

| | | | | | | |
|-----|----|-------|---|-----|-------------------|---------|
| 11. | - | 6 | - | 1 | MS buri | L, A |
| 12. | - | - | - | 1 | huri | |
| 13. | 20 | 2 | - | - | khyA, MS | P, L |
| 14. | - | - | - | - | khya | P |
| | - | - | - | - | jadu sakti | P, P |
| 15. | - | 2 | - | - | khyA | P |
| 16. | - | 4 | - | 1 | huri, khyA | L, P |
| 17. | - | - | - | 1 | khyA | P |
| 18. | - | 2 | - | 1 | huri, khyA | P, A |
| 19. | 9 | 1 | - | - | gala buri | P, L |
| 20. | 20 | 1 | 2 | - | tisA, gala, khyA | P, P, P |
| 21. | 1 | - | - | - | tisA | P |
| 22. | 20 | - | 2 | - | kaku, khya, | L, A |
| | 20 | 2 | 1 | - | tisA, gala, sakti | P, INST |
| 23. | 20 | 4 | - | - | mari, buri | P |
| 24. | - | 1 | - | 1 | mari, buri | P, A |
| 25. | - | - | - | 1+1 | huri, mari | A, P |
| 26. | 20 | - | 1 | 1 | phuNA, buri, mari | LAP |
| 27. | - | 1+1+1 | - | - | huri, mari, khyA | APA |
| 28. | - | - | - | 1+1 | khyA, mari | A, P |
| 29. | - | - | - | 1+1 | mari, khyA | A, P |
| 30. | 20 | - | - | 1 | lu~mari, khyA | P |
| 31. | - | - | - | - | | |
| 32. | - | 5 | - | - | huri | P |
| 33. | - | - | 1 | - | huri | P REFL |
| 34. | - | - | 1 | - | huri | P |
| 35. | 20 | - | 1 | - | gala, buri | P, P |
| 36. | - | - | 1 | - | huri | P |
| | - | - | 1 | - | gala | P |
| 37. | - | - | - | 1 | huri | P |
| 38. | 20 | - | - | 1 | khwA, buri | P |
| 39. | - | - | 1 | - | huri | A |
| 40. | - | - | - | 1 | huri | P |
| 41. | 2 | - | 1 | - | mari, buri | P |
| 42. | - | - | 1 | - | mari | P |

| | | | | | | |
|----------|-------|--------|------|--------|------------|------|
| 43. | - | 1 | - | 2 | mari, buri | P, P |
| 44. | - | 1 | - | 1 | mari, buri | P, P |
| T | 314.0 | 43.0 | 16.0 | 22.0 | | |
| N | 19.0 | 20.0 | 13.0 | 18.0 | | |
| M | 16.4 | 2.15 | 1.23 | 1.2 | | |
| T=total, | | N=NPs, | | M=mean | | |

Appendix IV

Abbreviations

| | | | |
|--------|------------------|-------|-------------------|
| LOC | Location | PC | Past Conjunct |
| CI | Classifier | PART | Particle |
| Cls | Clause | NOM | Nominaliser |
| INF | Infinitive | GEN | Genitive |
| IMPERF | Imperfective | REL | Relativizer |
| ADV | Adverb | NF | Non-final |
| DEM | Demonstrative | TOP | Topic |
| COP | Copula | EMPH | Emphatic |
| NEG | Negative | TEMP | Temporal |
| Equai | Equational | Exist | Existential |
| HAB | Habitual | CON | Conditional |
| Pro | Pronoun | ABL | Ablative |
| Det | Determiner | NP | Noun Phrase |
| N | Number of tokens | 0 | Zero Anaphora |
| T | Total | M | Mean value |
| INST | Instrumental | PD | Past Disjunct |
| NPD | Nonpast Disjunct | NPC | Non Past Conjunct |

The Real Interpretation of DHĪLĪ from the Gopālarājavamsāvalī¹

Kashinath Tamot*

The Gopalarajavamsavali (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 upto 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 Malla (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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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 ḌHĪLĪ are put forward to interpret, because the words were either misinterpreted or untouched. The word ḌHĪLĪ 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 haraśimhna rājāsana mi lhosanatā samtra gahīto ḌHĪLĪsa turakayāke vaṃṃa... (fol. 46a.4)

Of this sentence Vajracharya (1957), Vajracharya et al. (1962), Pant and Pant (1972), Vajracharya and Malla (1985) and others have read 'mithlā' to *milho*, 'dhīrlīsa' to *ḍhīlīsa*. Some other scholars have read differently but they do not deserve any attention. The words *samtra* and *gahīto* are not interpreted by anyone upto now. With the closed study of Newari Bhujimola ("fly-headed") script and Early Classical Newari of the text, the above record was read.

MI LHOSANATĀ-However this is not Mithilā. Mi lho- has been used three times in the GV. The two uses are as follows.

1. ... *thva ṇamham miṃ mi lhosyam syāṇā* (439.5) "these five persons were killed plucking their eyes out (or with hostility)"
2. ... *rudramaladevasana sakhu bhāto jvanakam hasyam śāsti yāṇā kothachemsa mi lhosyam lā ḍyamṇana* (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 figurative 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 upto now. There is indication that it should be a personal name as there is honorific suffix -to (*ṃ*) annexed to it. The suffix has been used 50 times in the GV. While listing them the result comes out as follows:

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1. With <i>bhā</i> (<i>ro</i>) "courtier, noble" | 20 times |
| 2. With direct names of respected persons | 11 times |
| 3. With royal dignitaries <i>rājā</i> (<i>ju</i>) 'king' 2, <i>kumara</i> 'prince' 2 | 4 times |
| 4. With government personalities <i>mahāsāmvanta</i> "a great vassal" 1, <i>mahātha</i> "a chief minister 4," <i>mulami</i> "a chief person" 5, <i>dalavayī</i> "a commanding officer" 2 | 12 times |
| 5. With socially respected persons <i>upādhyāya</i> 'preceptor' 2, <i>yūdiśi</i> 'astrologer' 1, and <i>māmaju</i> 'mother' 1 | 3 times |

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

The morpheme -to (*ṃ*) 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 *Samtra Gahī* should be a personal name with or without adjective. Recently I visualised that this could be "Sultan Ghiyas - ud - dīn." We have record of Arabic word Sultan used in the forms of *suratāna*, *śrutāna* and *suratrāna* in the Medieval epigraphy of Nepal. (Tamot, 1990: 17) *Samtra* is one more addition to it, in which original five phonemes s, ṃ, t, r, and a are retained. *Gahī* is the shortened form of Ghiyas - ud- dīn, so according to Newari phonology of shortening multisyllabic words into two syllables. The equation of syllabic and phonemic change could be shown as follows:-

| Muslim form | GV form | Phonological phenomena |
|-------------|---------|------------------------|
| Ghiya | > Ga | Weak - ya lost |
| - s | > h | fricative s aspirated |
| ud - dīn | > ī | weak phonemes lost |

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

DHĪLĪSA - Now let us discuss the word *dhīlīsa*. 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 Amarakośas 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*, 8 th *varga*, 119 stanza and 2nd sequence number for Sanskrit *kara* or *bandhanalaya* in Classical Newari as follows:

2.8.119.2.

| | |
|----------|--------------------|
| Sanskrit | kārā, bandhanālaya |
| Nepali | jhyālkhānā |
| English | prison, jail |

Newari

| | | |
|--------------------------|-------|-----------------------|
| A ¹ (AD 1381) | 45a.1 | mi dhiña talaṃ chem |
| A ² (AD 1386) | 92b.1 | ḍhilaṃ chem |
| A ³ (AD 1430) | 74b.1 | mīm ḍhilaṃ kulaṃ chem |
| A ⁴ (AD 1517) | 50a.6 | mī dhiña talaṃ chem |
| A ⁵ (AD 1542) | 74a.2 | ḍhilaṃ chem |

From this we see *ḍhilaṃ* means 'imprisoned' and the root of it is *ḍhi(ṃ)*. We have inflected and derivated forms recorded in the Lexicon:

| Verb | Function | Meaning | Source |
|---------|-----------------|---------------|----------------------|
| ḍhi-ñe | Infinitive | to imprison | A ₂ 82a.2 |
| ḍhī-nā | Non-finite | imprison-ing | A ₁ 45a.1 |
| ḍhi-na | Gerundive | imprison-ing | A ₄ 67b.4 |
| ḍhi-laṃ | Adjectival | imprison-ed | A ₁ 92b.1 |
| dhi-sā | Nom. Derivative | imprison-ment | A ₇ 93a.7 |

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

| | | | |
|-------------|---------------------|---------|-------|
| ḍhiṃ--nā | 38b.3, 49b.5, 56a.3 | dhim-na | 54a.1 |
| dhim-ñatā | 53b.2, 58a.1 | | |
| dhi-ñatāṭoṃ | 55a.2 | | |
| dhī-līsa | 46a.4 | | |

The GV chronicler used *dhimriā* and *dhimriatā* in the sense of past tense. *ḍhi-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 *ḍhi(ṃ)*, 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 Amarakośa. The record is as follows:

3.3.84.1

| | |
|----------|-------------------------|
| Sanskrit | puraskṛta |
| Nepali | 'saturle cadhai garieko |

| | | | |
|--------------------------|------------------------------------|-----------|-------|
| English | attacked or harassed (by an enemy) | | |
| Newari | | | |
| A ⁴ (AD 1471) | 67b.4 | śatruśana | dhīnā |
| A ⁶ (AD 1598) | 122a.4 | śatruṇa | ṭimnā |
| A ⁷ (AD 1471) | 147b.5 | śatruṇa | ṭimnā |

Most probably the root *ṭim* is derived from Tibeto-Burman *daw "defy, interfere, be at enmity with", which is constructed from Tibetan *sdo-ba* "bid defiance", Burmese *táú* "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 *dhine* "to shut a door and to intend, to force, to press" and Manandhar (1986) entered *dhine* "to push, to sell using pressure"

With these evidences, it could be believed that the word 'dhīlisa' of the GV should be related to the root *ḍhi(m)* "attack, imprison" and *-li* is progressive assimilated form of "dhī-lam". The suffix *-sa* is locative marker. Thus *ḍhīlisa* could be translated as "in imprisoned or imprisonment"

Historical Context

In his second thoroughly revised edition of *Medieval History of Nepal*, Petch (1984) has given a good deal of information on Harasiṃha'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 (Harasiṃhadeva) was taken to Delhi and then released."

Here it is worth hearing more information on it from Petch (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 Tirhut, 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 Harasiṃha and reinstated him on the throne upon a promise of tribute. But at the end of that year Muhammad decided to annex Tirhut to his dominions. Upon hearing of the intentions of the Sultan, Harasiṃha left his country and fled toward the hills; this is said to have happened in Muharram 726 A.H. (December 8th, 1325-January 6th, 1326)."

"Sa 446 māgha śudi 3" (AD 1326 January 7th) is the date of death of Harasiṃhadeva, who died on the way to Dolakhā in Tinpāṭan while fleeing from his capital Simraongarh. He had fled 25 days before on Śaka era vālā (vārā)bdhi yugma śāsi (1247) pauṣa śukla navamī ravisūnu (= sanaiścara) 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 Harasiṃhadeva 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 Harasiṃhadeva 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 Harasiṃhadeva's revolt in the northern frontier should be one of them.

The GV chronicler gave the date of Harasiṃhadeva'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 "r āyata monārapam thamū agumana yāna vasyaṃ simaravanagarh bhaṅga 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 Harasiṃha was made prisoner and taken to Delhi is based originally on Isami's *Futuḥa-us-Salatin* written in AD 1326 by an eye-witness. Ferishta (1552 - 1623), Muslim historian, in his *Gulshan-i-Ibrahimi* highlighted it well. (J. Briggs, 1829. *History of the Rise of the Muhammadon 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 Harasiṃha 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 Harasiṃhadeva and the attack of Muhammad Bin Tughlaq on Simraongarh.

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

In Nepal Era 446 māgha śukla tṛtīyā (7th January, 1326), Harasiṃha, who kept enmity with Sultan Ghiyas-ud-dīn, went with Tughlaq in imprisonment.

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The Chomskyan Revolution in Linguistics and Foreign Language Teaching¹

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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.

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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. Roca 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 Roca'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 Roca'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 (SAAD) 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 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 idiosyncracies of given speaker, his slips of the tongue, hesitation, 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; Murdoch, 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 initiation 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:

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

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Structure and Content in Sentence Development¹

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 Bech 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.

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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 Alamogordo 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 Alamogordo 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 Foreign Language (EFL) have made in their extended prose writing. I conducted the field study on 40 such learners of (PCL I 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).

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Table 1 : Frequency and Percentage of Error

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

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.

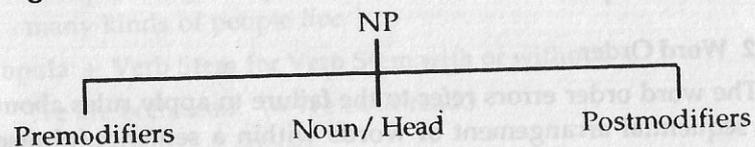
It is to be noted that English is a configurational language where words having various grammatical functions like SVO & A are arranged in a fixed sequence. Accordingly, words in basic English sentences can be arranged into nine types as follows (Quirk et al., 1973:12-13):

| Types | Examples |
|-------|---------------------------------------------------------|
| SAVO | <i>John carefully searched the room.</i> |
| SVACA | <i>The girl is now a student at a large university.</i> |
| SVCA | <i>His brother grew happier gradually.</i> |
| SVAA | <i>It rained steadily all day.</i> |

| | |
|------------|-----------------------------------------------------------------------------------------------------|
| SVOO | He had given the girl an apple. |
| SVOCA | They make him the chairman every year. |
| SV(SVA)O | She (S) saw (V) that [it (S) rained (V) all day (A)] (O). |
| SVC(SV)A | His brother (S) grew (V) happier (C) when [his friend (S) arrived (V)] (A). |
| (SVOA)SVOA | That [She (S) answered (V) the question (O) correctly (A)] (S) pleased (V) him (O) enormously (A). |

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



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

| | | |
|--------------|--------------------------------------|----------------------|
| (Pre+N) | (a) The girl | is Mery Smith. |
| (Pre+N) | (b) The pretty girl | |
| (Pre+N+Post) | (c) The pretty girl in the corner | |
| (Pre+N+Post) | (d) The pretty girl who became angry | |
| (N.) | (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.

Table 3: Error Types in Sentential and Phrasal Word Orders

Sentential Word Order

SOV for SVO

- My campus Navadurga Bahumukhi Campus read (=I read in Navadurga Bahumukhi Campus.)

SAOV for SVAO

- Village better than city is (= The village is better than the city.)

SCV for SVC

- They hard read. (= They read hard.)

OVS for SVO

- My friend is all Nepalese. (= All Nepalese are my friends.)

SVAVO for ASV

- They will tomorrow develop village. (= Tomorrow, they will develop the village.)

SVA for SVOA

- I like very much.... (= I like fish very much.)

Phrasal Word Order

Postmodifier + N for Premodifier + N +Postmodifier

- My campus name (= The name of my campus)

Premodifier + Postmodifier + N for Premodifier + N + Postmodifier

- Its length average (= Its average length)

Premodifier + N + Post modifier for Premodifier + N

- Our village near (= Near our village....)

N for Premodifier + N

- Village is (= The village is)

N+ Postmodifier for Premodifier + N +Postmodifier

- Name of my village development (= The name of my Village Development Committee)

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* villager's boy. (= *I am myself* a villager'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 '-ours' 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 the 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 villager (= 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 'Ø', '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 'Ø', '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.)

'To' 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.

- *Heur* 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 Connecters

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 aboused 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 is 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 ø

- 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 *nearby* 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 'Ø'

- 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.)

- My country very poor : *But* here future bright (= My country is very poor, but its future is bright.)
- He visits libraries *he* is found of reading stories biographies and travels (= He visits libraries. *He* is fond of reading stories, biographies, and travels.)

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

- *Agricullure* is the main occupation (= *Agriculture* is the main occupation.)
- The industries are *succesfull* when *thet* have *enoughs* good quality raw *metrials* are *succesfull* (= The industries *that* have *enough* qualitative raw *materials* are *successful*.)
- My *frend* is *mamber* of a simple *famaly* (= My *friend* is the *member* of a simple *family*.)
- in Nepal national *languge* is *Nepale* (= In Nepal, *Nepali* is the national *language*.)
- He is *papuler* 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 there 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 kyampusko 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 - 182) 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.

Let 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 despising 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):

'for' used instead of 'Ø', '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
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):

Here King Birendra *ruled* all over the Nepal. 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 *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 impure; beautiful and handsome; lives and situated; side and part; mountainous part and Himalayan region; sitting and living; education and literacy, sortage 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 example, 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 relaters, 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 approach 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 effectivity 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.

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Activities of the Linguistic Society of Nepal

1992 - 1993

A Memorandum on a Department of Linguistics Submitted

The Linguistic Society of Nepal constituted an expert committee in December 1992 to discuss modalities in formulating a suitable curriculum for the master's level studies in linguistics and propose a working syllabus for consideration and adoption by the academic council of Tribhuvan University in order to facilitate the opening of a Department of Linguistics within the T. U. system. The expert committee was chaired by Professor Kamal Prakash Malla, comprising 15 other linguists and university teachers in different T.U. Language Faculties. The committee handed in its report to the LSN following careful deliberations among its members. The president of LSN Mr. Nirmal M. Tuladhar submitted the findings of the committee as a memorandum to the Vice Chancellor on January 8, 1993. The text of the memorandum is as follows:

1. Rationale

Several proposals have been made in the last few years to establish a Department of Linguistics in Tribhuvan University. These, however, have remained unfulfilled for various reasons, the main being the lack of a follow-up action in drawing up a viable academic programme for the proposed Department. A 15 member Curriculum Committee was formed by the Linguistic Society of Nepal to prepare courses of study and a list of potential staff members who can contribute to teaching and development of courses in various areas of Linguistics.

The Department of Linguistics will have the following broad objectives:

- (a) To strengthen the need to study language as a discipline and as a medium of instruction in Tribhuvan University;
- (b) To create a wider interest in Linguistics and applied linguistics and to develop a sound infrastructure for linguistic studies and research in the University;
- (c) To consolidate the linguistic courses in various language departments (of English, Nepali, Newari, Maithili, Hindi and Sanskrit), and to study the areas where interdepartmental courses in linguistics can be offered;
- (d) To develop skill-based courses that have applications in such practical fields as language teaching, methods of field research on the languages of

Nepal, curriculum development, literacy projects, translation, lexicography etc.

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 | Contributors |
|-------------------------------------------|-----------------------------------------------------------------------------------|
| 1. Phonetics and phonology | Dr. Ramawatar 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 |
| 3. Semantics and Pragmatics | Dr. K.P. Malla Dr. Abhi Subedi Dr. Shanti Basnyat |
| 4. Sociolinguistics and Psycholinguistics | Dr. S.K. Sthapit Dr. N.K. Rai Mr. J.R. Awasthi |

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 vocoids are defined only spectrographically and radiographically and the contoids with the help of spectrograms, palatograms and kymograms. At times they are further 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 re-write 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 VC¹) which coincides with the Sonority Theory of Syllable Peak (Ladefoged 1982: 222) and is represented by Bar-Diagram (P.215). This syllable formula is used to explain Resyllabification (P.219), Pre-Semivowel Gemination (P. 220, ¶4. 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 of 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 *Pratisakhya*s, *Sikshas* 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.

Abstract

It is reported by Van Driem that there are thirty-six consonant phonemes in Dzongkha¹, three of which are a rather odd in classificatory terms: /pc/, /pch/ and /bj/. These three phonemes violate a principle of phonotactic restriction in the onset of a syllable which Goldsmith (90) has claimed is a language universal. However, we shall see that underspecification and the constraints posed by autosegmental licensing account for these phonemes without violating the above universal. The autosegmental theory of licensing favors the view that the sequences /pc/, /pch/ and /bj/ are two timing units. The features for the second timing unit are licensed at a lexical stage of derivation and the features for the first timing unit are licensed by default at a postlexical stage. The underlying distinction between /c/ and /pc/, /ch/ and pch/, and /j/ and /bj/, then, is not one of distinctive features, but the number of timing units they occupy on the skeletal tier. Data from other Tibeto-Burman languages with similar onsets can be accounted for in this fashion. We would suggest, then, that the above phonotactic restriction is a valid principle as a language universal.

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. Balthasar Bickel: Rin Cekma Achom Pogyu: The Possessivus Affectus 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.

4. Daya Ratna Shakya: Referential Management in Bhaktapur Dialect of the Newari Discourse
5. Sueyoshi Toba: Endangered Languages of Nepal.
6. George Van Driem: The Monpa Language of the Black Mountains.

Sessions II: General Linguistics

1. Tanka Prasad Rai: A Short Introduction to the Lohorong Language
2. J.P. Cross: A Question of Recognition
3. Kasinath Tamot: The Lexical Meaning of Java: the Smallest Coin of the World
4. Tika Prasad Upretee: In Search of Modern Script

Session III: Applied Linguistics

1. Sunil Kumar Jha: The Chomskyan Revolution in Linguistics and Foreign Language Teaching.
2. Wayne Amtzis: Context and Assertion: Sentence Development as a Prelude to Essay Writing.
3. Cristine Clinch: A Resource Centre in the Nepali Context
4. Ram Ekwal Singh: A Study on the Ordering of English Adjectives by Nepalese Students
5. Beerendra Pandey: Irony: A Pragmatico-Structuralist Approach

Session IV: Morphology and Syntax

1. David Bradley: Pronouns in Eastern Tibeto-Burman
2. R.K. Sprigg: The Systemic Value Concept Applied to Vowel-final Lexical Items in English
3. Yogendra P. Yadava: Constituent Structure in Maithili and discourse Strategies: Morphosyntactic Mismatches
4. Madhav P. Pokharel: The Grammar of Onomatopoeia in Nepali
5. Dev Narayan Yadava: A Morphological Analysis of Maithili
6. Anuradha Sudharsan: Passive Structures in Kannada

Presidential 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 at 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 each 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.

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In this issue

| | Page |
|-------------------------------------------------------------------------------------|------|
| 1. Irony : A Pragmatic Study | 1 |
| 2. The Grammar of Onomatopoeia in Nepali | 10 |
| 3. The Feature System of Newari Segments | 35 |
| 4. Referential Management in the Bhaktapur Newari Dialect Narrative Discourse | 67 |
| 5. The Real Interpretation of DHILI from the Gopalarajvamsavali | 91 |
| 6. The Chomskyan Revolution in Linguistics and Foreign Language Teaching | 100 |
| 7. Structure and Content in Sentence Development | 117 |
| 8. Error Analysis: Implications in Nepalese Context | 124 |
| 9. LSN Newsletter 1992-93 | 153 |
| 10. A list of Honorary and life members of LSN | 160 |