A TRANSFORMATIONAL TREATMENT

OF

HINDI VERBAL SYNTAX

Thesis
submitted for the Ph.D. degree
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by

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TO

MY FATHER

ABSTRACT

After acknowledgments and a general index, the thesis opens with an introductory chapter which gives a brief outline of the theory and model of grammatical description upon which this study is based, and reviews the previous work on Hindi verbal syntax.

This is followed by the two main chapters of the work. In chapter 2 Hindi sentence structure and the sub-classes of verb which are relevant for the formulation of the Constituent Structure rules are discussed, before the rules themselves are set out. Chapter 3 first gives some of the singulary transformations, the nominalization, adjectivalization and adverbialization rules follow, and the chapter ends with the singulary transformational rules.

The Appendix following these three chapters comprises a lexicon which gives a list of Hindi verbs with their appropriate syntactic, selectional and semantic features, and lists of the other lexical categories with only their selectional features.

The thesis ends with a bibliography of works on general linguistic theory and the model of Transformational - Generative Grammar on the one hand, and on Hindi language on the other.

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GENERAL INDEX

SYMBOLS AND CONVENTIONS

1) ‖ indicates sentence and word boundary

2) - indicates simple concatenation

3) + indicates the association of two symbols

(2) and (3) as here designated apply only to transformational rules: only + is used in the CS rules.

4) →→ describes rules of Constituent Structure:

X →→ Y + Z is read: "X is expanded to Y + Z".

5) () indicates the optional presence of a constituent, and simple concatenation is implied.

6) { } indicates a selection of one element, and simple concatenation is implied. Thus in accordance with the symbolism described in (5) and (6), X ($\left\{\begin{matrix}Y\\Z\end{matrix}\right\}$) is read: "choose either X alone, or X followed by either Y or Z".

7) $\left\{\begin{matrix}X\\Y\end{matrix}\right\} \twoheadrightarrow \left\{\begin{matrix}x + w\\y + z\end{matrix}\right\}$ indicates that two rules have been conflated, and reads: "X is expanded into x + w, and Y into y + z". The same applies in transformational rules.

8) $X \twoheadrightarrow w + y$ in the env. -- Z represents contextual restrictions in the expansion of a symbol. It is read: "X, when in the environment of a following Z, is rewritten as w + y".

9) $\emptyset$ indicates absence of a constituent.

10) $\twoheadrightarrow$ describes transformational rules.

11) S_b, S_e represent Base sentence and Embedded sentence respectively.

12) X_1, X_2, X_3 represent successive occurrences of X.

13) W, X, Y, Z are used as cover symbols for any variable.

14) $X_{[\pm y]}$ indicates X with the presence (+) or absence (-) of the grammatico-semantic feature [y].

15) $X = Y$ is read: "X is equal to Y".

16) $X \neq Y$ is read: "X is not equal to Y".

17) # indicates non-sentence.

18) mdX indicates Matrix Dummy of the type X in a particular environment. e.g. mdR is read: "the matrix dummy for Recipient Noun". It should be noted that md is here used in place of recursiveness on S in the CS rules.

The symbols of the I.P.A. have been used consistently for the Vowels and Consonants of Hindi, with the following exceptions:

š is used for I.P.A. ʃ
c is used for I.P.A. ʧ
j is used for I.P.A. ʤ

The aspirated consonants have been symbolized by a following h, e.g. ch is used for I.P.A. $t\int^h$.

Retroflexion has been indicated by a dot below the appropriate consonant symbol, e.g. ṭ is used for I.P.A. ʈ .

A system of transliteration and not of phonemic notation has been used, this explaining the occurrence of symbols such as ks and jñ. The inherent vowel ə of Devanāgarī syllabic writing has not been transcribed in positions where it is not pronounced.

References in footnotes to items in the bibliography make use of the author's name alone if there is only one entry for him, and of the author's name and the number of the work in the bibliography if there are several entries for him:

e.g. fn. 7 Guru.
fn. 5 Chomsky: 23.

CHAPTER ONE

INTRODUCTION

1.0 As is now generally recognized, any theory of language must be able to account not only for the structures and relationships manifest in any given text but also for the creative power of the mature speaker-hearer: that is, it must characterize the nature of the device which enables a child who has heard only a restricted, finite set of utterances to make generalizations on the basis of these data, and to produce and understand an infinite set of well-formed utterances.[1]

1.1 A theory of language is thus to be distinguished from individual models of linguistic description which are geared to a specific aim in linguistic research. Such individual models will, of course, provide insight into the nature of the device mentioned, and with appropriate feedback, will not only refine and strengthen the theory, but also, if formulated explicitly, make for simplification in the description of natural languages; i.e. in the form of individual grammars.

1.2 The only model devised in terms of a theory with the

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[1] Chomsky, N.: "Current Issues in Linguistic Theory" (1.1 and 1.2, pp. 50 - 61) in: Fodor and Katz. Note also other works by Chomsky in the Bibliography.

aim of specifying the nature of the device that accounts for the creative aspect of the language speaker-hearer's ability is the Transformational-Generative grammar (hereinafter TG) developed over the past decade at the Massachusetts Institute of Technology and various other centres. In other words, the features characteristic of TG are imposed upon it by the general theory; but before typifying these features, account must be taken of certain other implications of the theory: to wit, the following conceptual distinctions:[2]

a) competence vs. performance

b) 'langue' vs. 'parole'

c) grammatical vs. acceptable

1.21 The distinction between competence and performance is explained as follows: the mature speaker-hearer has the ability not only to produce and understand infinitely many new, well-formed sentences of his language, but also to recognize deviant utterances and, where necessary, to impose an interpretation on them. This ability characterizes his competence, whereas performance refers merely to his exercising this ability on any particular occasion.[3]

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[2] ibid.

[3] Chomsky, N.: 23.

1.22 This distinction brings to mind the one between 'langue' and 'parole' made by de Saussure. 'Langue' may be equated with competence as explained above and, similarly, 'parole' with performance.[4] Of course, this dichotomy cannot be stretched too far, observation of 'parole' provides the necessary insight into 'langue', but 'langue' is more central to the aims discussed in 1.0.

1.23 The discussion of grammatical vs. acceptable also derives from the distinction between competence and performance. "The notion 'acceptable' is not to be confused with 'grammatical'. Acceptability is a concept that belongs to the study of performance; grammaticalness to the study of competence...although one might propose various operational tests for acceptability, it is unlikely that a necessary and sufficient operational criterion might be invented for the much more abstract and far more important notion of grammaticalness ...Note that it would be quite impossible to characterize the unacceptable sentences in grammatical terms."[5] Unacceptable grammatical sentences cannot be used for reasons having to do not with grammar, but with memory limitations, stylistic factors, 'iconic' elements of speech, (e.g. a tendency to place major grammatical elements - logical subject and object - early rather than late) and so on. Thus the following will be low in acceptability though high

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[4]For a detailed discussion of the similarity and differences between 'langue' vs. 'parole' on the one hand, and 'competence' vs. 'performance' on the other, see: Chomsky, N.: "Current Issues in Linguistic Theory" (pp. 52, 59) in: Fodor and Katz.

[5]Chomsky, N.: 25.

in grammaticality:

"I called the man who wrote the book that you told me about up"

It is clear that the scales of grammaticality and acceptability do not coincide.[6]

1.3 Returning to the characteristic features of TG mentioned in 1.2, we may begin by specifying the form of the grammar. This has three components: syntactic, semantic and phonological.[7] The syntactic component is central to the scheme, the output of this component being the input to the semantic and phonological components. The syntactic component generates strings of minimal syntactically functioning elements (formatives)[8] and specifies the categories, functions and structural interrelations of the formatives and systems of formatives. It comprises the following:

i) constituent structure (CS) rules (or: 'Base component')

ii) transformational (T) rules

iii) lexicon.

The CS rules assign structural descriptions (SD) to sentences by indicating how a string of formatives is subdivided into constituents of varying scope. These are divided into two sets: a) branching

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[6] Chomsky (ibid.) has used the words 'performance' and 'acceptable' in a special sense. In general, 'acceptable' need not mean 'stylistically acceptable' as he has implied, and it need not be opposed to 'grammatical'. Thus it could be used in the traditional sense of 'grammatically acceptable'.

[7] Chomsky, N.: 15, and other of his works in the bibliography.

[8] "Morphemes" in: Katz and Postal.

rules, and b) sub-categorization rules; the latter being largely restricted to lexical categories. These two sets are not ordered with respect to each other, but once a sub-categorization rule has been applied to a certain category symbol θ, no branching rule can be applied to any of the symbols that are derived from θ (except in cases of branching within a word boundary). Both sets can be context-free or context-sensitive. Context-sensitive sub-categorization rules can be of two types: i) strict sub-categorization rules, and ii) selectional rules. (i) sub-categorize a lexical category in terms of the frames of the category symbols in which it appears, (ii) sub-categorize a lexical category in terms of syntactic features that appear in specified positions in the string. Once a selectional rule has been applied to form a Complex Symbol Q, no strict sub-categorization rule applies later to Q. There is the added convention that "Each major category has associated with it a 'designated element' as a member. This designated element may actually be realised (e.g. 'it' for abstract nouns, 'some(one, thing)'), or it may be an abstract dummy element".[9] It is this designated element that must appear in the transformations that do not preserve, in the derived string, a specification of the actual terminal representative of the category represented by the designated element or the dummy. This ensures the unique recoverability of deleted

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[9] Chomsky, N.: "Current Issues in Linguistic Theory" (pp. 70 - 71), in Fodor and Katz.

elements.[10] A general rule inserts lexical items in the string generated by the CS rules, although this rule need not be stated in the grammar since it is universal, and hence part of the theory of grammar.

The transformational rules that perform operations such as substitution, deletion, addition and permutation on the strings generated by the CS rules (underlying P-markers) to derive new strings (derived P-markers) operate on sets of P-markers which share the same structure index. The recursive or creative mechanism that accounts for the infinite properties of the language thus lies within the transformational subpart,[11] except for the convention that S is recursive in the CS rules. That is, each symbol dominating a lexical category can be replaced either by a categorial symbol or by S, and if S is selected, this signals an embedding (generalized) transformation. The string dominated by

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[10] This account of the base component is based on Chomsky, N.: 25. The following rules illustrate 'syntactic features', 'strict sub-categorization', 'selection' and the function of the 'designated element or dummy':

1) N: [-count] [+common] [+abstract] = "sincerity"

2) V: [+NP] in the env. --NP

3) [+V] ⇒ [-count, +abstract] [+common] in the env. N --.

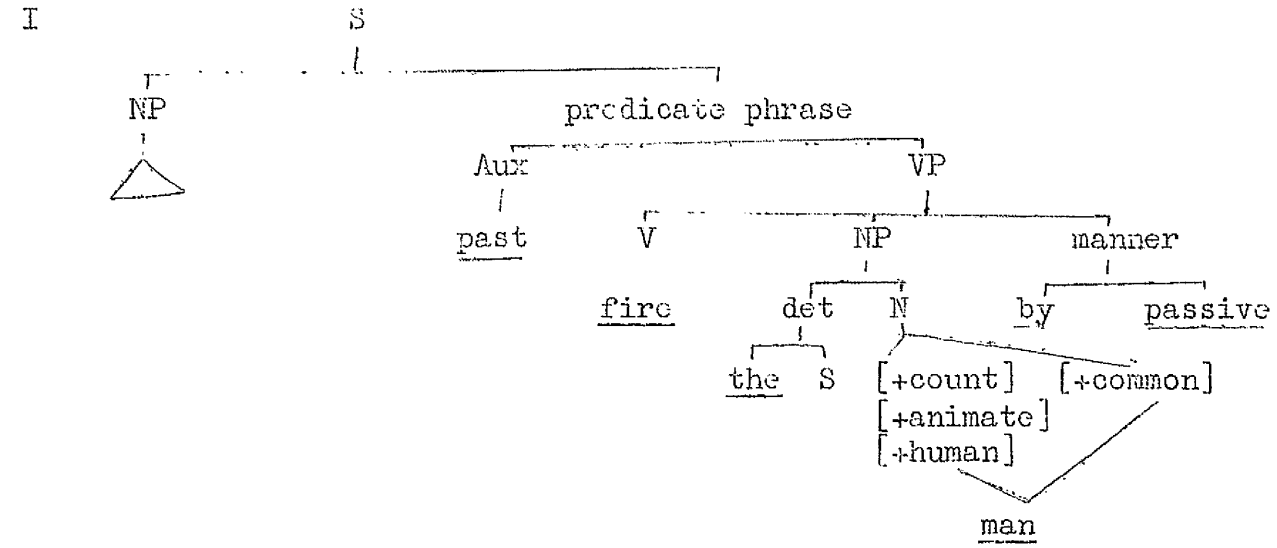
4) N ⇒ "someone" [+human] [+common] [+masculine]...

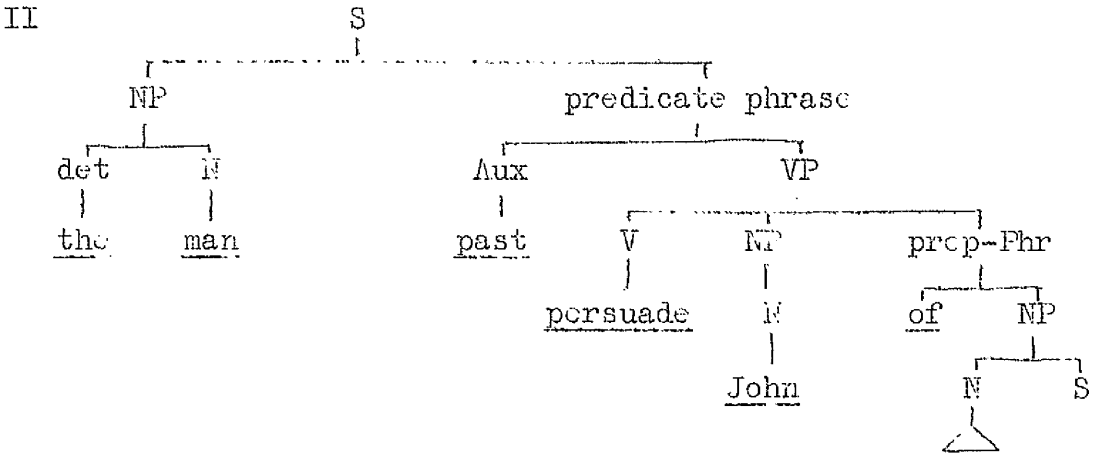
See also the trees on pp.16, 17.

[11] For a concise explanation of the role of CS and transformational rules, see Katz and Postal, (pp. 7 - 12).

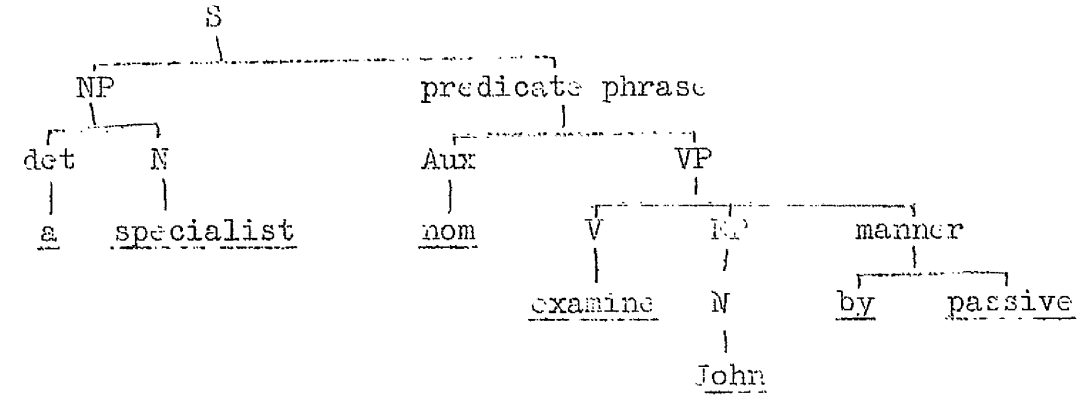
this occurrence of S will undergo appropriate singulary transformations, and will then be embedded in the matrix sentence, provided certain compatibility conditions are satisfied. For instance, a sentence such as:

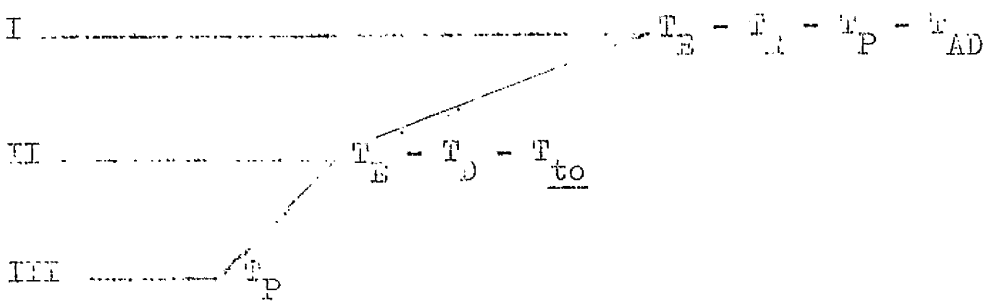
"the man who persuaded John to be examined by a specialist was fired" has the following transformational history:





III





The above informal T-marker specifies how the three S(entences) have undergone various transformations to generate the sentence under discussion.

The underlying P-markers generated by the base component act as input to the semantic component, which comprises a dictionary and projection rules, and receive a semantic interpretation; and the derived P-markers which are generated by the transformational sub-component act as input to the phonological component and receive a phonetic interpretation.[12]

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[12] For a detailed discussion of these components, see: Fodor and Katz: "The Structure of a Semantic Theory", Halle: "Phonology in Generative Grammar" (both in Fodor and Katz), Katz and Postal, Halle: 55, Chomsky: 15, etc.

1.4 The form of the grammar outlined above specifies the set of formal universals which has been provided by the theory. In addition to this the theory claims a set of substantive universals. "...the list of all formal universals presents the alternative ways in which a given linguistic description can formulate a generalization about the language it describes", whereas "the list of all substantive universals that the theory of linguistic descriptions makes available to particular linguistic descriptions is the stock of theoretical concepts that may be drawn upon in the construction of the rules and lexical formulations of a given linguistic description."[13] The universals thus specify the set of features that are common to all natural languages, and in doing so form a theory of language. In other words, a full specification of the set of features called the universals is a theory of natural language.

2.0 The model of TG and the theoretical assumptions behind it were accepted for the present study of Hindi verbal syntax for the following reason. The problem of describing certain features of Hindi verbs (e.g. the Compound Verb, the function of participial phrases, etc.) is essentially one of finding the syntactic and semantic features which regulate the behaviour of verbs. TG is

[13] Katz and Postal: p. 160.

the only current model of linguistic description which provides an adequate form for such an integrated description.[14]

2.1 A theory provides the theoretical vocabulary and also a set of concepts out of which particular linguistic descriptions of particular languages are constructed. The descriptions thus test the theory and either strengthen it, or question its assumptions, or else point out the weaknesses in the theory and provide evidence which suggests that a more comprehensive, or even a different kind of, generalization must be found.

2.2 This study has used the theory and model discussed above to specify the set of grammatical rules by means of which new nouns, adjectives and adverbs are created; which explicate the traditional grammatical notion of nominals, adjectivals and adverbials being derived from verb phrases of various types. For instance, the internal structure of expressions such as the ones

[14] That is, all the 'formal universals' provided by the theory have been used in this partial grammar of Hindi to account for the phenomena specified below in paragraph 2.2. Although some of the symbols, such as Q, wh, neg, N, V, etc. have been claimed to have the status of substantive universals, this study supports this claim only insofar as comparable symbols, e.g. K, J, neg, N, V, etc. have been used in formulating rules for Hindi. Whether the claims regarding substantive universals are justified or not is yet to be seen.

underlined in examples 1, 2 and 3 exhibit the same kind of major grammatical relations as found in sentences 4, 5 and 6 respectively:

1. ram ka cʊpcap vəhã se khısək jana mʊjhe əccha nəhĩ ləga
   "I did not like Ram's slinking away from there."
2. mẽ pıtaji ki layi hʊi nəi təsvir dekh rəhi thi
   "I was looking at the new picture brought by my father."
3. ram, sita ɔr ləkşmən ke vən jate hi raja dəšrəth ki mrtyʊ ho gəi
   "King Dashrath died as soon as Ram, Sita and Lakşmaṇ left for the forest."
4. ram cʊpcap vəhã se khısək gəya
   "Ram slunk quietly away from there."
5. pıtaji nəi təsvir laye
   "Father brought a new picture."
6. ram, sita ɔr ləkşməṇ vən gəye
   "Ram, Sita and Lakşmaṇ went to the forest."

This partial grammar of Hindi thus contains rules that generate various types of simple sentences, and rules that convert these sentences into nominal, adjectival and adverbial expressions.

2.21 The syntax of Hindi verbs has not been discussed in any great detail before, although the traditional description of Hindi by Ramta Prasad Guru contains many insightful remarks about the Nominative-Ergative, passive and causative sentences, Compound Verbs, and various uses of verbal nouns and participial phrases.[15]

[15] Guru: pp. 154 - 70, 322 - 405, 569 - 601.

Recent attempts at describing the Compound and Conjunct verbs, or the functions of participial phrases[16] have suffered on two accounts: either the descriptions have not paid enough attention to the syntactic features of verbs[17], or they have not been based upon any theoretical conception of linguistic structure, and hence, have failed to make any significant generalizations.[18] The latest sketch of Hindi grammar[19] gives an inventory of elements and systems operating in various places in structure. The statements regarding systems are so vague and unrelated that it is hard to draw any conclusions from them. For instance, a system of transitivity and a system of aspect have been set up at clause rank; systems of voice, tense and aspect are set up at (verbal) group rank, and a system of aspect has been set up again for the element V. Causals have been treated as merely a sub-class of lexical verbs. The account of Compound verbs (i.e. the sequence $\vec{li}$)[20] is incomplete and inadequate, and the category of Conjunct verbs (i.e. 'compound 1') includes examples such as <u>santos hona</u>, <u>dukh hona</u> etc. which are

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[16] Burton-Page: 89, 90; Hacker: 94, 95.

[17] Burton-Page: op. cit.

[18] Hacker: op. cit.; Burton-Page: 91.

[19] Verma: 105. See also: Halliday: 37, 38, 39; and Halliday, McIntosh and Strevens.

[20] Where $\vec{x}$ indicates obligatory sequence.

not Conjunct verbs. As is clear from the account following this, the system of causative and possibly that of passive should have been set up at clause rank, and a system of Simple vs. Compound at (verbal) group rank, along with tense, aspect and modals. This failure in setting up systems at proper ranks results in an unsatisfactory account of passive and causative sentences.

CHAPTER TWO

1.0 The CS rules following this section have been formulated to account for the various types of Hindi verb phrases (abbreviated VP), both finite and non-finite. As there is no account of Hindi sentence structure available which could serve as a basis for this study, we shall consider the types of sentences in which these VPs occur before we proceed to the discussion of the VPs themselves.

1.1 In modern linguistic writings,[1] one particular type of Hindi sentence structure has attracted much attention, that referred to as the Perfective Nominative-Ergative type.[2] To make what is involved in this type of sentence structure explicit, reference is also made to the Imperfective Subject-Object type,[3] and Intransitive sentences. Other types of Hindi sentence structure have not received a full treatment so far.

1.11 To make the discussion of Hindi sentence types more comprehensible, let us consider the following sentences:

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[1] Allen; Verma.

[2] Allen: op. cit. Although the Hindi case system is not parallel to Sanskrit, Greek or Latin, and has no terms like Nominative, Accusative, etc., we have retained the term used by Allen to designate this type of sentence structure.

[3] As Imperfective sentences with transitive verbs are comparable to subject-object type sentences in other languages, such as English, we have referred to them as such.

I Intransitive:

1. cɪɽɪya ɑɽ gəyi	"The bird flew away"
2. ʈhəɳḍi həva cəl rəhi thi	"A cold wind was blowing"
3. mɔsəm sɑhavna tha	"The weather was pleasant"
4. ləɽki bimar thi	"The girl was ill"

II Imperfective Subject-Object type:

5. dhobi kəpɽe dho rəha tha	"The dhobi was washing the clothes"
6. bheɽɪyo bəkrɪyɑ̃ kha jate hɛ̃	"The wolves eat up the goats"
7. sɔnar gəhne bənata hɛ	"The goldsmith makes ornaments"
8. mali phul toɽta tha	"The gardener picked the flowers"

III Perfective Nominative-Ergative type:

a. 9. dhobi ne kəpɽe dho lɪye	"The dhobi finished washing some clothes"
10. bheɽɪyõ ne bəkrɪyɑ̃ kha lĩ	"The wolves ate up some goats"
11. sɔnar ne cuɽɪyɑ̃ bənaĩ	"The goldsmith made some bracelets"
12. mali ne phul toɽe	"The gardener picked some flowers"
b. 13. dhobi ne kəpɽõ ko dho lɪya	"The dhobi finished washing the clothes"
14. bheɽɪyõ ne bəkrɪyõ ko kha lɪya	"The wolves ate up the goats"
15. sɔnar ne cuɽɪyõ ko bənaya	"The goldsmith made the bracelets"
16. mali ne phulõ ko toɽa	"The gardener picked the flowers"

IV Passive:

17. ghayəl hɔns se ɑɽa nəhĩ gəya
"The wounded swan was unable to fly"
18. dhobi se kəpɽe dhoye nəhĩ gəye
"The dhobi was unable to wash the clothes"

19. sɔnar se gəhne nəhĩ bənaye gəye
"The goldsmith was unable to make ornaments"
20. sare phul toṛ liye gəye
"All the flowers were picked"[4]

V

21. pɪtaji ko kəlkətte jana hɛ
"Father has to go to Calcutta"
22. mɛjhko kəi ciṭṭhɪyã lɪkhni hẽ
"I have to write many letters"
23. dhobi ko saṛɪyã dhoni cahɪyẽ
"The dhobi should wash the sarees"
24. əb bəcce ko so jana cahɪye
"Now the child should go to sleep"

VI

25. pɪtaji ko bhukh ləgi hɛ
"Father is hungry"
26. mã ko naṭək əccha nəhĩ ləga
"Mother did not like the play"
27. bəcce ko nĩd a rəhi hɛ
"The child is feeling sleepy"
28. pətr pa kər ɔsko bəṛi xɔ̃ši hɑi
"He was very happy to get the letter"[5]

1.12 The main syntactical features of the six sets of sentences are as follows:

I - The Subject, which is in the direct case,[6] and the verb agree

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[4]Note the absence of the passive agent which, if present, would have been ne + se.

[5]The phrase pətr pa kər is adverbial and could either precede or follow ɔsko.

[6]For a full discussion of the number, gender and case systems of Hindi see: Allen. Note that the oblique case is frequently homophonous with the direct.

in number and gender, the number and gender of the former being indicated by the verb if the Subject Noun shews no formal indication of them;

II - is similar to I in all respects, except that the sentences in II have an Object Noun as well, which could either be in the direct case, or in the oblique if followed by ko;

III - the Agent Noun[7] is in the oblique case and is followed by the postposition ne; the Patient Noun[7] is in the direct case, and the verb agrees with the Patient Noun in number and gender in (a). In (b) the Patient Noun is in the oblique case and is followed by the postposition ko, and the verb does not agree either with the Agent or the Patient Noun.

IV - The syntactic features of this set are similar to the features of set III, except that the postposition following the Passive Agent[7] is se.

V - is similar to set III as far as features of concord are concerned.

VI - is similar to set IIIa, except that the initial noun[8] is followed by the postposition ko.

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[7] As the terms Subject and Object do not seem appropriate for Ergative sentences, we have used the terms Ergative Agent, Patient Noun and Passive Agent respectively for the first and second nouns of type III and first noun of type IV.

We are grateful to Professor R.B. Lees for suggesting the term Patient Noun for the "Object" of type III sentences.

[8] No attempt has been made here to use a defining term for Nouns in initial position in sets V and VI.

1.13 Although sets IV, V and VI appear to be similar to set III, there are some important differences between them. The Perfective Nominative-Ergative type is restricted to the Infinitive[9] only, but set VI is completely unrestricted as regards aspect. Set III is restricted to Transitive verbs,[10] set VI is restricted to one particular sub-class of Intransitive verbs,[10] set V is free from such restrictions.

1.14 In modern linguistic descriptions of Hindi,[11] the above syntactic characteristics are pointed out, and in one description,[12] a system has been set up to provide for a choice of either non-ne or ne-subject, depending upon the choice of appropriate class of verb and aspect. In the same description, although a system of voice has been set up for the verbal group, and the Infinitive verbal group has been treated parallel to the Imperative and Indicative verbal groups, no statement has been made about the nouns in the sentence types IV and V. Presumably, on analogy with ne-subject, a se-subject (object?) and a ko-subject will be set up in such a description for the sentences in IV and V respectively.

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[9] For a detailed description of aspect, see: Allen.

[10] That class of verbs which operates in sentence types II and III is referred to as Transitive verb. Similarly, the class of verbs which operates in sentence type I is termed Intransitive.

[11] See fn. 1 above.

[12] Verma.

The CS rules which could make the above description explicit would be as follows:

(i) $S \rightarrow\!\!\rightarrow NP + VP$

(ii) $VP \rightarrow\!\!\rightarrow \left\{ \begin{matrix} NP \\ (Comp) \end{matrix} \right\} V \ (passive) \ Asp \ (T_{aux})$

(iii) $Asp \rightarrow\!\!\rightarrow \left\{ \begin{matrix} ta \\ ya \\ na \\ \emptyset \end{matrix} \right.$

(iv) $T_{aux} \rightarrow\!\!\rightarrow \left\{ \begin{matrix} ga \quad if \quad \emptyset \ -- \\ cahiye \quad if \quad na \ -- \\ hɛ \\ ho \\ hota \\ hoga \\ tha \end{matrix} \right.$

(v) $NP \rightarrow\!\!\rightarrow \left\{ \begin{matrix} N + no \quad if \quad \| -- NP + V + ya \\ N + se \quad if \quad \| -- A + V + passive \\ N + ko \quad if \quad \| -- NP + V \ (passive) \ na \\ N \ elsewhere \end{matrix} \right.$

1.15 The above rules, although descriptively adequate, are unsatisfactory for the following reasons:

a. Certain generalizations that we can make about the sentence-types III - VI are lost, e.g., the same constraints that apply to the first and second nouns in III will apply to the first (and second nouns) respectively in IV - VI; and the number - gender and person concord - rules will be the same for sets III - VI.

b. The introduction of ne, se and ko by rule V results in unmotivated branching of NP in the tree.[13]

Both these consequences would complicate the formulation of structural indices to which later transformational rules could be applied.

1.2 At this point, it is helpful to discuss the classes and sub-classes of verbs which are relevant for branching rules in the CS component.

1.21 The following sets of sentences are helpful in classifying the Transitive verbs:

A.	29.	ram ne cay pi	"Ram drank tea"
	30.	ram ne mitr ko cay pilayi	"Ram gave his friend tea to drink"
	31.	mohən ne seb khaye	"Mohan ate apples"
	32.	mohən ne ram ko seb khilaye	"Mohan fed Ram with apples"
	33.	ʂikʂək ne chatr ko postək di	"The teacher gave a book to the student"
	34.	mã ne pitaji ko bhat pərosa	"Mother served rice to father"

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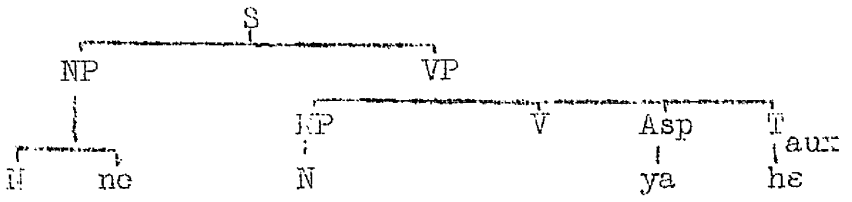
[13] The tree would be as follows:



Branching of NP into N and ne as above is unmotivated, as ne is not a property of the NP, but is rather connected with the VP as a whole. That is, the choice of ne depends on the choice of V and Asp.

B. 35. ram ne mohən se mitr ko cay pılvayi
"Ram caused Mohan to give his friend tea to drink"

36. malkın ne rəsoıye se bəccõ ko khana khılvaya
"The mistress caused the cook to feed the children"

37. Şıkşək ne dokandar se chatr ko pəstək dılvayi
"The teacher made the shopkeeper give a book to the student"

38. mã ne bəhən se pıtaji ko bhat pərosvaya
"Mother made sister serve rice to father"

1.22 Sentences 29 and 30 in set A are Perfective Nominative-Ergative type, but the rest of the sentences in A have an additional constituent between the Agent and the Patient Noun. Furthermore, this constituent is made up of the elements N + ko. Traditionally, this constituent has been referred to as "Indirect Object", and although this term is not consistent with Agent and Patient Noun, we shall retain it for the present. Sentences 29, 30 and 31, 32 exemplify the fact that certain transitive verbs which occur in sentence type III have a derivative which occurs in sentence type A, but certain verbs in sentence type A have no parallel forms in sentence type III: e.g. the verbs in A 35 and 34. As all the sentences in A, however, share the syntactic characteristics of type III enumerated in section 1.12, the verbs occurring in them are treated as a sub-class of Transitive verbs.

1.23 Sentences in B, again, differ from A 30, 32, 33, and 34 in that they have one additional constituent: N + se between the Agent, and the "Indirect Object", Noun. The verbs in B 35 - 8

are, again, formally related to the verbs in A 29 - 34. Such formal relationships, however, are not restricted to the Transitive verbs. The following sentences are also possible:

C. 39. bəcca so gəya "The child went to sleep"
40. mã ne bəcce ko səlaya "Mother put the child to sleep"
41. mã ne nokər se bəcce ko səlvaya
"Mother made the servant put the child to sleep"

Sentences with N + se constituents in this position have been called "Causal" sentences in traditional grammars, and the constituent N + se has been termed the Causative agent! Since we are using Agent Noun for the N + ne in type III sentences, we shall refer to the N + se in B and C as the "Mediant Noun". The verbs in B and C will be treated as a further sub-class of Transitive verb, as the sentences in B and C share the syntactic characteristics of type III sentences. The verbs in A 30, 32, 33 and 34 will be referred to as "double transitives" and the verbs in B and C as "causatives".[14]

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[14] As the double transitive and causative verbs have generally been discussed under morphology by the traditional grammarians, there has been a great deal of confusion as regards what genuine causals are. Statements like the following are quite common: "From all other roots, two causal bases can be derived, the first of which is generally used as a transitive, and the second is considered to be genuinely causal." Guru: Section 203, p. 165.
"If the primitive be a neuter verb, it is plain that the first causal will be the corresponding active verb." Kellogg: Section 420, Rem. 253.
"The first point to notice in considering the causal verbs is that
(Continued overleaf)

1.24 The following sets of sentences exemplify the sub-classes of Intransitive verbs:

I.	42.	ram kɪtab laya	"Ram brought a book"
	43.	chatr bhaṣəṇ nəhĩ səmjhe	"The students did not understand the lecture"
II.	44.	mohən ko hə̃si ayi	"Mohan felt like laughing"
	45.	bəcce ko khɪlaune mɪle	"The child got some toys"
	46.	chatrõ ko nəya ŠɪkṢək kəch jə̃ca nəhĩ "The students did not like the new teacher"	
	47.	hɪrəṇ ko goli nəhĩ ləgi	"The deer was not hurt by the bullet"
III.	48.	ləṛki svəsth ho gəyi	"The girl recovered"
	49.	əb həmara nɔkər buṛha ho gəya hə "Now our servant has become old"	
IV.	50.	mɔjhe kəhani əcchi ləgi[15]	"I liked the story"
	51.	mã ko fɪlm vahɪyat ləgi	"Mother found the film bad"

[15]The forms Pronoun + ko and Pronoun + e are in free variation.

fn. 14 (Cont. from preceding page)
many verbs which are causal in form are not, strictly speaking causal verbs...it is a misuse to call chilna the causal of chɪlna or chɪl jana. The former is an active verb...The true causal verb indicates the causing of another to do something..." Greaves: Section 271, p. 301.

Such confusion is avoided when the verbs are looked at syntactically, as has been done in the above discussion. As sentences like the following are ungrammatical, our labelling of double transitive and causal seems to be well motivated:

* ram ne mɪtr ko cay pi
* ram ne mohən se mɪtr ko cay pɪlayi
* ŠɪkṢək ne dɔkandar se chatr ko pɔstək di

Sentences like:

mã ne pɪtaji ko bhat pərosvaya

will be "understood" as B 58 after ...ediant Noun deletion, never as A 34.

Sets I and III are similar in that the first Noun is in the direct case, but they are different in that the second nominal element in I is a Noun, but in III it is an adjective. In sets II and IV the first Noun is in the oblique case followed by the postposition ko; but whereas in set II the second element is a Noun, in set IV the first Noun is followed both by a Noun and an Adjective.

1.25 Then there are the copula verb sentences, like:

52.	kəmra həvadar hɛ	"The room is well ventilated"
53.	meri bəhən ḍakṭər hɛ	"My sister is a doctor"
54.	radha Šəkuntəla bəni	"Radha acted as Shakuntala"
55.	vəh bəṛa bhola bənta hɛ	"He pretends to be innocent"

1.26 The position regarding the so-called Impersonal or Passive voice of the intransitive verbs is not clear. There are statements such as the following in Hindi Grammars:[16]

> "The impersonal voice is, in fact, the passive voice used for intransitive verbs." (p. 58)
>
> "Only transitive verbs can have a passive voice." (p. 98)
>
> "The impersonal voice...is a variety of the passive, as applied to intransitive verbs." (p. 102)

However, this confusion regarding the terms "passive" and "impersonal" has not prevented grammarians from observing that:

> "Apart from the jana passives...there are a large number of

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[16] Sharma.

verbs which are passive by nature...All these are, of course, intransitive in form. Their active forms are, naturally, transitive...The active forms are used like ordinary transitive verbs...And they can form a passive as well: kaṭa jana, khola jana, bãdha jana, etc." (ibid. p. 100)

Let us consider a few examples of active verbs which have both a jana passive and an "original passive":

56. ləṛke ne davat gıra di "The boy dropped the inkpot"
57. ləṛke se davat gıra di gəyi } "The inkpot was dropped by the boy"
58. ləṛke se davat gır gəyi }
59. sonar ne gəhne nəhĩ bənaye "The goldsmith made the ornaments"
60. sonar se gəhne nəhĩ bənaye gəye } "The ornaments were not
61. sonar se gəhne nəhĩ bəne } made by the goldsmith"

As the "impersonal voice" is said to be restricted to the intransitive verbs, and the "original passives" are intransitive verbs, the question naturally arises, do these original passives also occur in the impersonal voice? It turns out that they do not; the following are impossible:

* davat se gır jaya gəya
* gəhnõ se bəna nəhĩ gəya

It also turns out that only the transitive verbs which co-occur with Instrumental adverbials also occur in passive and causative sentences. The transitive verbs such as khona, bhuḷna, jənna, oṃ̃hana (lose, forget, give birth to, startle(someone)) which do not co-occur with Instrumental adverbials do not occur in passive

or causative sentences either.[17] Hence, in this study, the passive agent and the mediant noun have been derived from the instrumental adverbial, which is satisfactory with regard to the semantic interpretation of the passive and causative sentences:

62. ram se kəpṛe dhoye gəye "The clothes were washed by Ram"
63. mohən ne ram se kəpṛe dhəlvaye
"Mohan caused the clothes to be washed by Ram"
64. mohən se ram se kəpṛe dhəlvaye gəye
"The clothes were caused to be washed by Ram by Mohan"

Sentence 64, though stylistically clumsy, is perfectly acceptable.

1.3 After the preceding discussion of simple verbs, we proceed to discuss the Compound and Conjunct verbs[18] in some detail. Almost all the grammars and modern descriptions of Hindi[19] make an attempt to classify the Compound verbs (hereinafter CV) on the basis of their meaning or formation or both. Very little, if any, attention has been paid to their syntactic function.[20] This has resulted in futile arguments about whether the CV is primarily a grammatical category, or a category of meaning or context.[21]

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[17] The causatives pəṛhvana, khilvana, etc. are not the causative forms of pəṛhna, khana, etc. but of pəṛhana, khilana, etc. It is by no means sufficient to characterize the causative verbs only with the feature [+instrumental adv], the other features that are relevant in this connection have been discussed on pp. 97 - 9.

[18] Burton-Page: 89.

[19] Guru; Greaves; Burton-Page: op. cit.; Hacker: 94, 95.

[20] Burton-Page: op. cit.

[21] Burton-Page: op. cit.; Hacker: op. cit.

No clear picture of the grammatical status of CV has emerged so far. Before we suggest a solution to this problem, let us consider the following sentences:

I. 65. gɪlheri peṛ pər cəṛh gəyi "The squirrel climbed up the tree"

66. pəka am ṭəpək pəṛa "The ripe mango dropped down"

67. mali ne sare phul toṛ ḍale "The gardener picked all the flowers"

68. Šɪkari ne bagh ko mar ḍala "The hunter killed the tiger"

69. gɔsse mɛ̃ vəh bəcce ko mar beṭha
"He rashly hit the child in his anger"

70. do-tin dɪnɔ̃ mɛ̃ məkan səja dɪya jayga
"The house will be decorated in a day or two"

II. 71. vəh dɪn cəṛhe tək sota rəhta hɛ
"He sleeps till late"

72. məna kərne pər bhi ləṛki gati gəyi
"Although she was asked to stop, the girl went on singing"

III. 73. vəh sɔbəh ki gaṛi se ghər cəla gəya
"He went home by the morning train"

74. həva ke jhɔ̃kɔ̃ mɛ̃ ḍalɛ̃ jhɔki pəṛ rəhi thĩ
"The branches were stooping down because of the force of the wind"

75. nĩd nə ane pər bhi vəh leṭa rəha
"He remained lying down even though he could not sleep"

IV. 76. tɔm aram kəro, mɛ̃ jhaṛu ləgae deti hũ
"You rest, I shall sweep the floor for you"

77. bəcce ko kyɔ̃ mare ḍalte ho
"Why are you almost killing the child?

V. 78. vəh əb kam pər jane ləga hɛ "He has started to go to work now"

79. ahəṭ sɔnte hi kətta bhɔ̃kne ləgta hɛ
"The dog starts barking as soon as it hears a noise"

1.31 The above five sets of sentences exemplify the following five morphological types of CV:

I. V + Operator
II. V + ta + Operator
III. V + ya + Operator
IV. V + ye + Operator
V. V + ne + Operator

(Note that the phonetic form of these suffixes will change according to their environment which will be specified by morphophonemic rules.) The list of Operators that can occur in each type is as follows:[22]

V+Opr		V+ta+Opr	V+ya+Opr	V+ye+Opr	V+ne+Opr
a	de	a	ja	ja	ləg
ja	ɖal	ja	pəɽ	le	de
pəɽ	nɪkal	rəh	kər	de	
ʊʈh	kha		cah	ɖal	
bəʈh	mar				
nɪkəl	dekh				
rəh	gɪra				
cəl	mə̃gə				
rəkh	pəhə̃c				
le	pa				
dhəmək					
...					
...					

[22]This list is not claimed to be exhaustive, but it is claimed that any addition to it will not add anything new to the syntax of CVs outlined in the following pages.

1.32 The following operators can follow any verb:

V+ta	V+ya	V+ne
ja	kər	ləg
rəh	cah	de

The rest of the operators vary in their distribution, so the verbs have to be sub-classified according to the co-occurrence restrictions between verbs and operators. Some further co-occurrence restrictions on operators follow:

1. V + ya + Operator and V + ye + Operator constructions do not co-occur with perfective, and V + ye + Operator does not co-occur with future tenses.

2. Only the following operators co-occur with the negative particles:[23]

V+ya+Opr	V+ne+Opr
cah	de

3. All operators except the following can co-occur in imperative sentences:

V+ta	V+ya	V+ye	V+ne
a	ja	ja	ləg
	cah	le	
		de	
		ḍal	

4. Only transitive CVs (cf. Section 1.34) can operate in passive sentences. (cf. Sections 1.11, 1.12)

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[23] These restrictions apply only to unemphatic, normal statement type sentences. Emphasis will make some difference to all that has been stated so far.

1.521 Before the verbs are sub-classified according to the occurrence of the operators, it is interesting to consider if the members of a certain sub-class of V resulting from the application of this criterion have any other syntactic or semantic features in common. Note that Kamta Prasad Guru lists only the following operators which follow V as intensifiers: oṭhna, beṭhna, ana, jana, lena, dena, pəṛna, ḍalna, rəhna, rəkhna and nikəlna.[24] The semantic explanations accompanying these are revealing: e.g. the above operators are said to have the following meaning and restrictions of occurrence:

oṭhna — denotes suddenness; occurs with verbs that express state, e.g. bolna, rona, kãpna, cõkna (to speak, cry, tremble, be startled) etc.

beṭhna — denotes impudence; occurs only with verbs such as marna, cəṛhna, kəhna (to hit, climb, tell) etc.

ana — indicates i) the direction of an event towards the speaker-hearer, e.g. badəl ghir aye "The clouds encircled the sky"

ii) suddenness if following bolna, kəhna, rona, hẽsna (to speak, tell, cry, laugh) etc. (dekh ana, loṭ ana, etc. result from the deletion of kər in dekh kər ana, loṭ kər ana, respectively, etc.)

jana — indicates i) completion if following hona, bənna, phəlna, mərna (to happen, be made, spread, die), etc.

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[24] Guru: pp. 396 - 400.

ii) speed if it follows process verbs such as khana, nigəlna, pina, pəhõcna, ana, ghumna (to eat, swallow, drink, reach, come, wander), etc.

iii) direction away from the speaker, if kər is deleted from dekh kər jana, lət kər jana, etc.

iv) use of jana in passives.

lena has a meaning similar to ātmanepadam of Sanskrit, i.e. the result of the action, process, etc. is directed towards the actor: e.g. kha lena, sən lena (to eat up, listen), etc.

dena has a meaning similar to Sanskrit parasmaipadam, i.e. the result of the action, process, etc. is directed towards someone other than the actor: e.g. khıla dena, mar dena (to feed, hit), etc.
It means suddenness when it follows cəlna, hãsna, rona (to move, laugh, cry), etc.

pərna is similar to jana, and means "happening" with intransitive verbs: e.g. gırna, cõkna, kudna, hãsna (to fall, be startled, jump, laugh), etc.

ḍalna occurs only with transitive verbs, and denotes vehemence: e.g. mar ḍalna, kat ḍalna, tor ḍalna (to kill, cut, smash up), etc.

rəhna indicates continuous action.

rəkhna is similar to lena, and is restricted to a few verbs.

nikəlna is similar to pərna, and is restricted to a few verbs.

1.522 lena and dena are obviously the kind of operator about which general statements could be made. It is interesting to note that whereas lena occurs with transitive verbs, such as

khana, pina, socna, səməjhna (to eat, drink, think, understand), etc. dena occurs with double transitive verbs such as khılana, pılana, bhejna (to feed, give to drink, send), etc. Of course there is a large number of transitive verbs with which both lena and dena occur, but an obvious difference in meaning results if a transitive verb is followed by dena instead of lena:

80. mɛ̃ ne cɪṭṭhi pəṛh li "I read the letter (for myself)"
81. mɛ̃ ne cɪṭṭhi pəṛh di "I read the letter (for the benefit of somebody else)"

Notice also that only the V + lena could have a recipient noun identical with the actor:

82. mɛ̃ ne əpne ko səmjha lıya "I consoled myself"
* mɛ̃ ne əpne ko səmjha dıya
83. mɛ̃ ne ɔsko səmjha dıya... "I consoled him..."

It is also significant that only the verbs that can co-occur with dena have a causative form: e.g. khılana - khılvana, sɔlana - sɔlvana, pəhnana - pəhənvana (to feed - cause to feed, put to sleep - cause to put to sleep, dress (someone) - cause to dress (someone)). That is, the following pairs of sentences are related:

84a. ɔsne bəcce ko sɔlaya "He put the child to sleep"
84b. ɔsne nokər se bəcce ko sɔlvaya
"He made the servant put the child to sleep"
85a. ɔsne ətıthı ko mala pəhna di
"He garlanded the guest"

85b. ɔsne choṭi bəcci se ətɪthɪ ko mala pəhənva di
"He got the guest garlanded by a small girl"

1.323 On the basis of the above, two semantic markers: (ātmane), (parasmai) have been set up to make the occurrence of V + lena, dena type of CV predictable. Similarly, various other semantic markers such as (direction), (action), (process), (stative), etc. have been set up to characterize the sub-classes of verbs which are followed by ana, jana, ɔṭhna, bəṭhna, pəṛna, etc. to indicate the type of semantic interpretation which the CVs would receive. (cf. the Lexicon: p. 121).

1.33 The following verbal sequences, although they appear to be similar to CVs, have been left out of this account, because they do not behave similarly to the CVs discussed above:

86. bavən vərṣ ki ɔmr mẽ hi seṭh ji cəl bəse
"Seth died when he was 52"
87. ɔski jan pər a bəni "His life was in danger"
88. Šətrɔ̃ ne qɪla ja ghera "The enemy surrounded the fort"
89. cɪṛɪya jal mẽ ja phẽsa "The bird was caught in the net"

The first two are clearly idioms as their readings do not amalgamate to produce a non-deviant reading.[25] The next two are different from CVs, as the following sentences will show:

90a. cɪṛɪya ɔṛ gəyi "The bird flew away"
90b. cɪṛɪya nəhĩ ɔṛi "The bird did not fly away"

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[25]Other such idioms are: ṭəpək pəṛna, bən pəṛna (to arrive unexpectedly, be possible), etc.

89a. cɪɽɪya jal mɛ̃ ja phɛ̃si "The bird was caught in the net"
89b. cɪɽɪya jal mɛ̃ nəhĩ phɛ̃si "The bird was not caught in the net"

In CV, the reading of the V dominates and the reading of the Operator modifies it, which is not the case with ja phɛ̃sna. It is obviously a sequence of two Vs: jana and phɛ̃sna, and derived by a deletion transformation from:

91. cɪɽɪya ja kər jal mɛ̃ phɛ̃s gəyi
"The bird went and got caught in the net"[26]

1.34 The status of the CVs in terms of transitivity is clear if we consider the following sentences:

92. bɪlli ne sara dudh pi lɪya
93. bɪlli sara dudh pi gəyi
"The cat drank up all the milk"

94. bəcca ro dɪya
95. bəcca ro pəɽa
"The child burst out crying"

It is clear that the CV is transitive if both the V and the Opr belong to the transitive class of Vs, and is intransitive otherwise. Of course, only CVs of the V+Opr type lend themselves to this test, as all the others involve a participial form of the V (V+ta, V+ya, etc.) and some of them are severely restricted in their co-occurrence possibilities with Aspect-markers. (cf. Section 1.32).

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[26]Other such sequences have gherna, jhəpəṭna, dɔɽna, bhɪɽna, ḍəṭna, bəsna, rɑ̃kna, pəhɔ̃cna, mɪlna, ṭuṭna, etc. as the second V.

However, although the $V_{transitive}$ + $Operator_{intransitive}$ type of CV is syntactically intransitive in that it cannot participate in the Perfective Nominative-Ergative type concord (cf. 1.12), $V_{transitive}$ still retains its characteristics of having a Patient noun as in sentence 93 above.

1.35 Thus, CVs are not merely a sub-class of verb , because if we treat them as such, from the point of view of the Perfective Nominative-Ergative type concord, they will fall together with the intransitive Vs of the lana type; but the constraints that apply to the second nominal of sentences with lana type Vs will not be applicable to such CVs. Instead, the constraints that apply to such CVs are the same as those that apply to the Patient noun and $V_{transitive}$. It therefore seems profitable to treat Operators as separately concatenable elements inside the VP in the CS rules.

1.36 The question arises at this point as to why items like səkna and cukna have been left out of the preceding discussion. These items have always been treated as Operators[27] in grammatical writings on Hindi. We propose to treat them differently for the following reasons:

1. səkna and cukna (markers of ability and completion respectively, and hereinafter designated the M element) are

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[27] cf. fn. 18 and 19 above.

not restricted in their co-occurrence possibilities to any particular sub-class/es of the V.

2. Although M does not participate in Perfective Nominative-Ergative type sentences, unlike the Intransitive CVs, it can operate in Passive sentences.

3. Only sɔkna can co-occur with the negative.

4. Unlike the Operators M does not operate in Imperative sentences.

5. M can follow CV in a sentence, although there will be some restrictions on such sequences.

1.4 The Conjunct Verbs present a somewhat different problem and have to be considered separately. Several criteria have been suggested to separate the Conjunct Verbs from sequences of Nominal + Verb,[28] but they have not been entirely successful. Three criteria necessary to separate the two are suggested below: The nominal element in a Conjunct verb

1. cannot be followed by any postposition,
2. cannot be inflected for number, gender or case,
3. cannot be preceded by any modifier, not even the possessive form.[29]

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[28] Burton-Page: op.cit.

[29] This is a necessary condition as otherwise sentences like the following would be considered to have a Conjunct verb as their main verb:

1. ɔsne der tɔk apka intɪzar kɪya
   "He waited for you for a long time"
2. mɔjhe bəhən ki yad ayi "I remembered my sister"

(Continued overleaf)

1.41 Unlike CVs, Conjunct verbs constitute a lexical category of verb and, as such, would be introduced as sub-classes of Intransitive and Transitive verbs, depending on the class membership of the verbal element of the conjunct verb.

2.0 The following CS rules sum up the above discussion. Each rule is followed by necessary explanations and exemplifications.

2.1 $S \rightarrow\!\!\rightarrow \left(\left\{\begin{matrix}K\\Imp\end{matrix}\right\}\right) NP + VP$

The first rule of the CS expands the initial symbol S into an optional K or Imp, and NP plus VP. The element K represents the Interrogative and, if selected, signals the application of Q transformations (cf. T_{27} and 28 , p. 107.). Similarly, Imp represents the Imperative and, if selected, signals the application of the Imperative transformation (cf. T_{33} , p. 109.).

Negative has not been treated parallel to the Interrogative as it does not shew parallel structure. The

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(fn. 29 Cont. from preceding page)
These obviously have to be analysed as:
1. ɔsne - der tək - apka ɪntɪzar - kɪya
2. mɔjhe - bəhən ki yad - ayi
as opposed to sentences like:
3. ɔsne dərvaza bənd kɪya "He closed the door"
4. mɔjhe məkan pəsənd aya "I liked the house"
which have to be analysed as:
3. ɔsne - dərvaza - bənd kɪya
4. mɔjhe - məkan - pəsənd aya
Verbs like dɪkhai dena / pərna, sɔnai pərna, etc. are Conjunct verbs according to the above criteria.

differences will become clear in the following rules.

2.2 VP →→ (neg) (tm) (pl) VP' (M) AT

The VP is expanded into the main verb phrase VP', and obligatory A(spect) and T(ense auxiliary) constituents, and optional elements of negative, time and place adverbials.

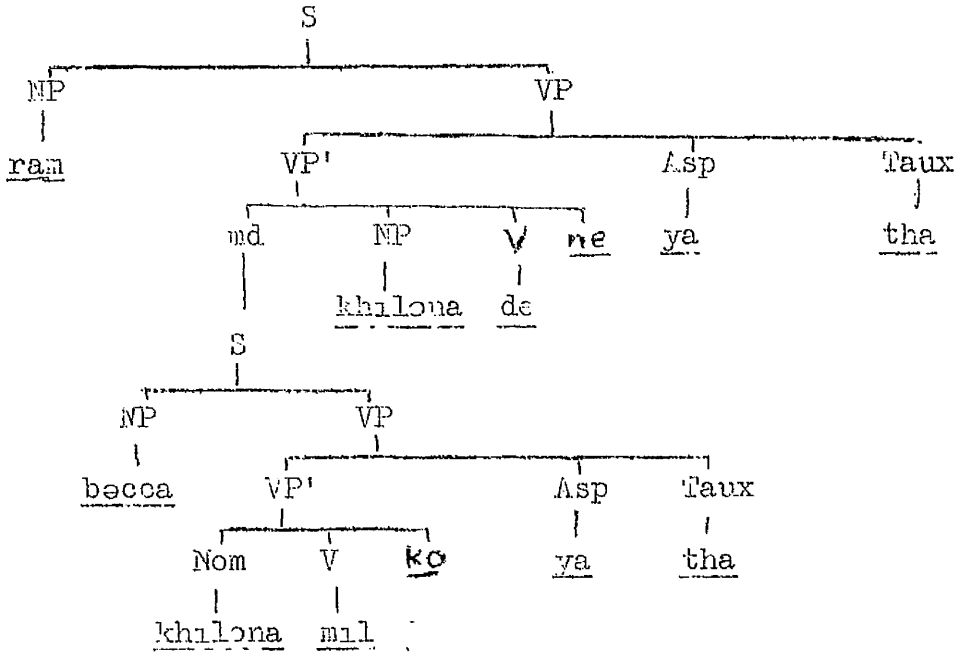
2.3 VP' →→ (PPphrase) $\left(\left\{\begin{matrix}(\text{mdR})\ \text{NP}\\ \text{Nom}\\ \text{Pred}\end{matrix}\right\}(\text{comp})\right)$ V' ((SE)Operator)

VP' is expanded into adverbial phrases that are relevant for the subcategorization of verbs into sub-classes of verbs, and into an optional Operator which may or may not select S(tem) E(nding) for V. The sub-classes of verbs which depend on the selection of one of the choices in the second constituent of VP' are as follows:

+NP	-	Transitive
mdR + NP	-	Double transitive
+Nom	-	Verbs of the <u>legna</u> type
+Pred	-	Copula verbs
$\left\{\begin{matrix}\text{NP}\\ \text{Nom}\end{matrix}\right\}$ +comp	-	Verbs which require a complement

If the second constituent above is not selected we get a simple intransitive verb, which will be characterized by [-NP] in the following pages. All these types have been discussed in detail in the preceding sections, where they have also been exemplified (cf. 1.11 - 25). The mdR, if selected, will

signal the embedding of a recipient noun (cf. T_5 p. 66). The following somewhat simplified tree will make the embedding of a recipient noun clear:



After various ordering, concord and deletion transformations the resulting sentence would be:

ram ne bəcce ko khıloɲa dıya tha

"Ram had given a toy to the child"

The following conditions determine the application of the relevant embedding transformation:

1. The embedding transformation has to follow the order transformation that attaches the ne and ko elements to the initial NP of the respective sentences, under specified conditions (cf. T_1, T_2 and $T_{2.1}$).

2. The second NP of the matrix and the Nom of the constituent sentence have to be identical.

3. The Asp and Taux of the matrix and constituent sentences have to be identical.

2.4 $M \rightarrow \begin{cases} sək \\ cɔ̃k \end{cases}$

The symbol M is expanded into the markers of ability (sək) and completion (cɔ̃k).

2.5 $AT \rightarrow \begin{cases} e + ga \text{ if } Imp + M' \text{ (B) } VP' \text{ ---} \\ ya \\ e \\ Asp + Taux \end{cases}$

(Note that B = (neg) (tm) (pl))

The constituent AT is expanded into future if Imp is selected in 2.1, simple past or contingent future or Aspect and Tense auxiliaries otherwise.

2.6 $Asp \rightarrow \begin{cases} ta \\ ya \\ rəha \\ e \end{cases}$

2.7 $Taux \rightarrow \begin{cases} ga \text{ if e---} \\ hɛ \\ tha \\ hoge \\ ho \\ hota \end{cases}$

The above context-sensitive rules specify all the choices possible in Asp and Taux, viz.:

V + e - contingent future

V + e + ga - future

V + ta + hɛ	- present imperfect
V + ta + tha	- past imperfect
V + ta + hoga	- presumptive imperfect
V + ta + ho	- contingent imperfect
V + ta + hota	- past contingent imperfect
V + ya	- simple past
V + ya + hɛ	- present perfect
V + ya + tha	- past perfect
V + ya + hoga	- presumptive perfect
V + ya + ho	- contingent perfect
V + ya + hota	- past contingent perfect
V + rəha + hɛ	- present continuous
V + rəha + tha	- past continuous
V + rəha + hoga	- presumptive continuous
V + rəha + ho	- contingent continuous
V + rəha + hota	- past contingent continuous

The following observations on Hindi aspect are relevant to the discussion of the sub-classes of Hindi verbs which undergo the transformations that derive the adjectival phrases from underlying verb phrases (cf. Section 5.1.2 pp. 69ff.) The imperfective and perfective aspects provide us with the notion of the action or process resulting in a state, e.g.

96. vəh kʊrsi pər bəṭhta hɛ "He sits on a chair"
97. vəh kʊrsi pər bəṭha hɛ "He is seated on a chair"

The action of sitting is not relevant in 96 (which indicates habitual action), whereas the process is complete, and the actor

is in the state of being seated in 97. In the case of verbs of action, the perfective does not imply a state but an event; e.g. in:

98. vəh tez dɔṛta hɛ "He runs fast"
99. vəh tez dɔṛa hɛ "He has run fast"

the action is not complete in 98, whereas in 99 the event of running has already taken place. Thus two classes of verb are established: one is action/process - state verb, the other is action/process - event verb. It is interesting to note that most intransitive verbs are action/process - state, whereas most transitive verbs are action/process - event, although there are exceptions to this. More has been said about this in the relevant sections.

2.8 PPphrase $\rightarrow\!\!\rightarrow$ { Instrumental, Concomitive, Separative, Source, Manner, ... }

2.9 Instrumental $\rightarrow\!\!\rightarrow$ (mdM) NP + se

The mdM signals the mediant noun embedding in Causative sentences (cf. T_4, p.65.), and the NP + se characterizes the strings that undergo the passive transformation (cf. T_5, p. 64).

PPphrase has been expanded into various adverbial phrases which are relevant for the subcategorization of V. In a full grammar of Hindi many more sub-classes of PPphrase may be found

necessary, but there is no motivation to subcategorize them any further for the present. Verbs that co-occur with Instrumental also occur in causative sentences, e.g.:

100. ɔsne ɖak se kıtab bheji "He sent the book by post"
101. ɔsne nəkər se ɖak se kıtab bhıjvayi
"He made the servant send the book by post"
102. caku se phəl kəṭa "The fruit got cut with a knife"
103. ɔsne caku se phəl kaṭa "He cut the fruit with a knife"
104. ɔsne bəhən se caku se phəl kəṭvaya
"He made his sister cut the fruit with a knife"

Verbs like socna, janna (to think, know), etc. that do not co-occur with Instrumental do not occur in causative sentences either. This restriction is useful in characterizing the strings in which mediant noun embedding is possible[50] (cf. T_5, p.36.).

2.10 $V' \rightarrow$ { V + Passive in the envs. NP + se (-- AT / A-- ((SE)Operator) ; V(ne) in the env. NP(comp)--((SE)Operator) ; V + ko in the env. Nom(comp)--((SE)Operator) ; V elsewhere }

(Note that A = (mdH) (mdR) NP (comp))

The V + Passive signals the passive transformation (cf. T_3, p.64).

2.11 $V \rightarrow$ C.S. in the env. { PPphrase / Ø / NP / Nom } (comp) -- Operator
Pred
Passive

[50] Sentences like: phul dhup se murjha gəye (The flowers withered away in the sun) are not counter-examples to this argument, as dhup se here is not Instrumental but Source. Besides, the above argument applies only to transitive verbs.

The above rule rewrites the V as a C(omplex) S(ymbol) in the environments specified. This rule is an abbreviated version of the following rules:

Assign the feature:

[-NP] to the V if the second constituent dominated by VP' is not selected,
[+NP] to the V if the NP dominated by VP' is selected,
[+comp] to the V if comp is selected,
[+Pred] to the V if Pred is selected,
[+Nom] to the V if Nom is selected, and so on.

The rule could be spelled out as follows:

2.12 $$V \rightarrow [+v, \pm PPphrase, \begin{Bmatrix} +NP \\ +Nom \\ +Pred \\ -NP \end{Bmatrix} (+comp) \Big\}, \pm Operator, \pm Passive]$$

That is, each verb gets a category feature [+v] obligatorily, plus the syntactic features such as [+ or - PPphrase], [+ or - NP], etc. depending upon the environment in which the V occurs in a particular string.[31]

2.13 $$Operator \rightarrow C.S. \text{ in the env. } \begin{Bmatrix} \emptyset \\ NP \\ Nom \\ Pred \end{Bmatrix} V --(SE)$$

Operator is written as a Complex Symbol by this rule, as the Operator also has to be subcategorized according to

---

[31] See: Chomsky: 23 for a full discussion of subcategorization.

the subcategory of the V with which it can occur (cf. Sections 1.34 and 1.35), and also according to the S(tem) E(nding) of the V.

This rule again can be rewritten as follows to make the assignment of features clear:

2.15.1 Operator →→ $[+Opr, \left\{\begin{matrix}\pm NP \\ +Nom \\ +Pred\end{matrix}\right\}, \pm SE]$

At this stage, before subcategorizing the CVs, it may be useful to reconsider the status of the Operators listed on p.37 . Consider the following:

105. ləṛki hɔ̃s pəṛi "The girl burst out laughing"
* ləṛki hɔ̃s kər pəṛi

106a. ɔsne kagzat ki ḍher mẽ se cɪṭṭhi dhũṛh nɪkali
106b. ɔsne kagzat ki ḍher mẽ se cɪṭṭhi dhũṛh kər nɪkali
"He searched out the letter from among the pile of paper"

107. mẽ ɔsse kəh (kər) dekhta hũ kɪ kya hota hɛ
"I shall tell him and see what happens"

108. ɔsne kɪtab kherɪdva (kər) mɔ̃g(v)ayi
"He had the book bought and brought (to him)"

109a. ɔsne peṛɔ̃ ko kaṭ gɪraya
109b. ɔsne peṛɔ̃ ko kaṭ kər gɪra dɪya
"He felled the tree"

110. həm piṛhɪyɔ̃ se ɪs məkan mẽ rəhte aye hɛ̃
"We have been living in this house for generations"
* həm piṛhɪyɔ̃ se ɪs məkan mẽ rəhte hœ aye hɛ̃

but 111. həm rat bhər gaṛi mẽ sote (hœ) aye hɛ̃
"We have been asleep the whole night in the train"

112. lərki gati gəyi "The girl went on singing"

113. lərki gati hɔi gəyi "The girl was singing as she went"

114. vəh dɪn bhər sota rəhta hɛ "He keeps sleeping the whole day"

* vəh dɪn bhər sota hɔa rəhta hɛ

It is clear from the above that in V+Opr type CVs, whereas V+pərna is a CV, the status of V+nɪkalna, dekhna, mə̃g(v)ana, gɪrana is doubtful, as the seem to be derived by the deletion of kər from adverbial phrases of V+kər type. As regards the V+ta+Opr type CVs, there is a difference between the sequence V+ta(+hɔa)+V (as in 110 - 3 above) and V+ta+Opr; and sequences like sota ana will have to be derived by deletion, whereas rəhta ana is a clear instance of CV. This would make further sub-classification of Vs (so that rəhta ana does not get two structural descriptions) important. We shall come back to this later.

2.14 $$SE \rightarrow \begin{cases} ta \\ ya \\ ye \\ ne \end{cases}$$

The above rule expands the SE into four different stem endings, one of which could be selected if SE has been chosen in rule 2.3.

2.15 $$[+SE] \rightarrow [+ \begin{bmatrix} ta \\ ya \\ ye \\ ne \end{bmatrix}] \text{ in the env. } \begin{bmatrix} ta \\ ya \\ ye \\ ne \end{bmatrix} \_\_.$$

The syntactic feature [+SE] assigned to the Opr is rewritten as [+ta, ya, ye or ne] according to whether the Opr

follows ta, ya, ye or ne.

2.16 $[-SE] \rightarrow [+\{a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q\}]$

The feature [-SE] assigned to the Opr is rewritten as [+a, b, c,...q] according to the above rule. This gives us 17 Opr of the V+Opr type CVs. It is necessary to treat each Opr of this group as a class in itself as the list of Vs that can precede the individual Opr does not coincide with regard to any two Oprs.

The following rule subcategorizes the [+Operator] feature assigned to the V in terms of the above sub-classes of Opr.:

2.17 [+Operator] →→ [+ [a, b, ., ., q] in the env. -- +Opr [a, b, ., ., q]]
[ta, ya, ye, ne] in the env. -- +Opr [ta, ya, ye, ne]

As the sub-classes of V+ta, ya or ye +Opr are not relevant to the syntactic rules we shall not specify them here. The selection of V and Opr in such CVs has, however, been specified in the lexicon (cf. p. 121.).

2.18 Nom →→ NP

2.19 Pred →→ {NP, Adj}

Rules 18 and 19 rewrite the Nom and Pred elements as NP or Adj. The following sentences exemplify the choices in 2.18 and 2.19:

115. ɷsko coṭ ləgi [NP]$_{Nom}$
"He was hurt"

116. cərcıl ṭori dəl ke məhan neta the [NP]$_{Pred}$
"Churchill was a great leader of the Tory party"

117. nehru bharət mẽ bəre lokprıy the [Adj]$_{Pred}$

2.20 NP →→ {SdP if Imp ---, (rel) N, ProN}

Rule 2.20 expands the NP in various positions into rel which, if selected, would signal the embedding of Adjective (cf. T_{7-9}), or relative clause (cf. T_{10}).

The rules that follow now rewrite the N as a C(omplex) S(ymbol) and assign various features to it.

2.21 $\left\{\begin{matrix}\text{N}\\ \text{ProN}\end{matrix}\right\} \rightarrow\rightarrow$ C.S. in the env. $\left\{\begin{matrix}\text{(K) -- N + V}\\ \text{(K) N --V}\end{matrix}\right.$

2.21.1 $\left[\begin{matrix}\text{N}\\ \text{ProN}\end{matrix}\right] \rightarrow\rightarrow \left[+\left[\begin{matrix}\text{N}\\ \text{ProN}\end{matrix}\right], \pm\text{Plural}, \pm\text{Feminine}, \pm\text{Count}\right]$

2.21.2 [+N] $\rightarrow\rightarrow$ [±Definite] in the env. (mdR) -- V

2.21.3 [+ProN] $\rightarrow\rightarrow$ [±ThP]

2.21.4 [-ThP] $\rightarrow\rightarrow \left[+\left\{\begin{matrix}\text{PtP}\\ \text{SdP}\end{matrix}\right\}\right]$

All the above features, [+N] and person, number, gender and countability are necessary to formulate the selectional features of the V. The feature [±Count] is developed further in the following rules.

2.22 [+Count] $\rightarrow\rightarrow$ [±Animate]

2.23 [+Animate] $\rightarrow\rightarrow$ [±Human]

2.24 [+Human] $\rightarrow\rightarrow$ [±Honorific]

2.25 [-Count] $\rightarrow\rightarrow$ [±Abstract]

All the above features such as [±Honorific], [-Animate], [±Abstract] are necessary to account for concord features, or restrictions on N in various positions, or embeddings. For instance, Honorific is a feature necessary to account for the second personal pronominal form ap, and the special Imperative form of the V, e.g. jaɪye (honorific "go") as opposed to non-honorific jao; [+Abstract] is necessary to specify the dummy that signals the embedding of verbal nouns in sentences like mɔjhko jana hɛ (I have to go); [+Animate] is necessary to characterize the mdM and mdR which signal the mediant and recipient noun embeddings respectively (cf. T_4 p. 65, T_5 p. 66).

The V has to receive all the features that the first and second nominals have:

2.26 $$[+V] \quad \rightarrow\rightarrow \quad \text{C.S. in the env.} \quad \| \; NP - \left\{ \begin{matrix} \emptyset \\ NP \ (comp) \\ Nom \\ Pred \end{matrix} \right\} \; ---$$

Later transformational rules will specify the concord relations (cf.

2.27 $$neg \quad \rightarrow\rightarrow \quad \left\{ \begin{matrix} nə \\ nəhĩ \\ mət \end{matrix} \right. \quad \text{in the env.} \quad Imp + NP \; --$$

2.28 $$Adj \quad \rightarrow\rightarrow \quad \text{C.S. in the env.} \quad N \; -- \; V$$

2.28.1 Adj →→ [+adj, ±attributive]

2.28.2 [+adj] →→ [±Honorific / ±Abstract, ±Plur, ±Fem]

in the env. $\overline{\text{N}}$[±Honorific / ±Abstract, ±Plur, ±Fem]

Rule 2.28 rewrites the Adj as a C.S., and the next two rules specify the inherent and selectional features of the Adj respectively.

CHAPTER THREE

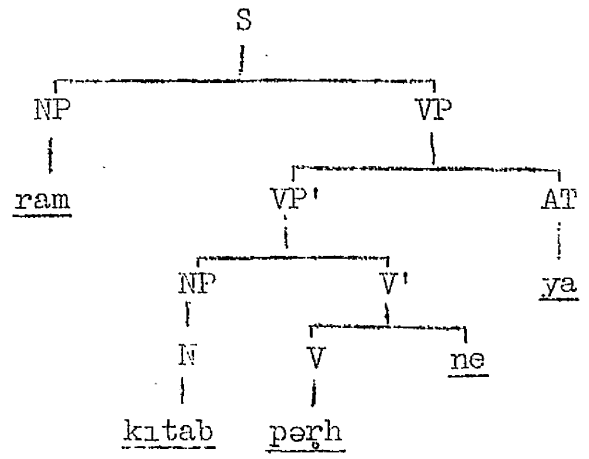
3.0 Before formulating rules for Nominalizations, Adjectivalizations, Adverbializations, concord, etc., it is necessary to assign the ne, a and ko elements (cf. CS rule 2.10, p. 32) their proper place in the string. The following transformational rules accomplish this:

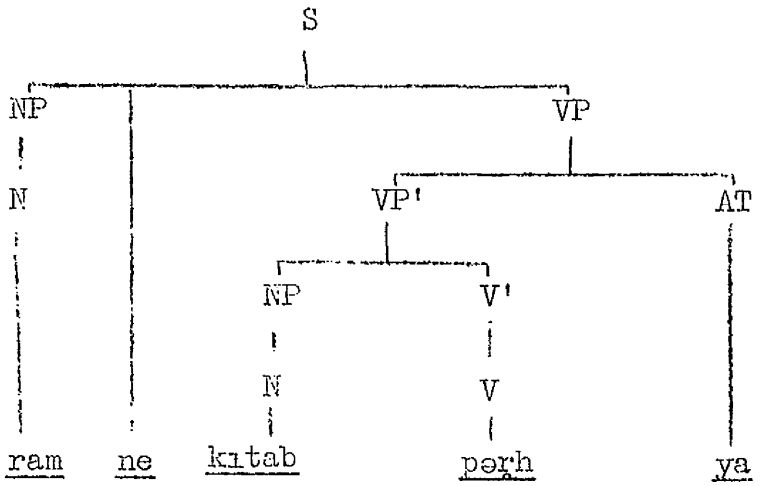
T_1 - Nominative - Ergative

$$X - N - A - V + ne\ (Opr.)\ ya\ (T_{aux})$$

$$\rightarrow\rightarrow\rightarrow \quad X - N + ne - A - V\ (Opr.)\ ya\ (T_{aux})$$

The effect of the above transformational rule is made explicit by the following trees:





The application of appropriate concord and morphophonemic rules will yield:

118. ram ne kɪtab pəṛhi

"Ram read a book."

T_2 ko placement

$$X - N_1 - W - N_2 - V + ko - Y$$

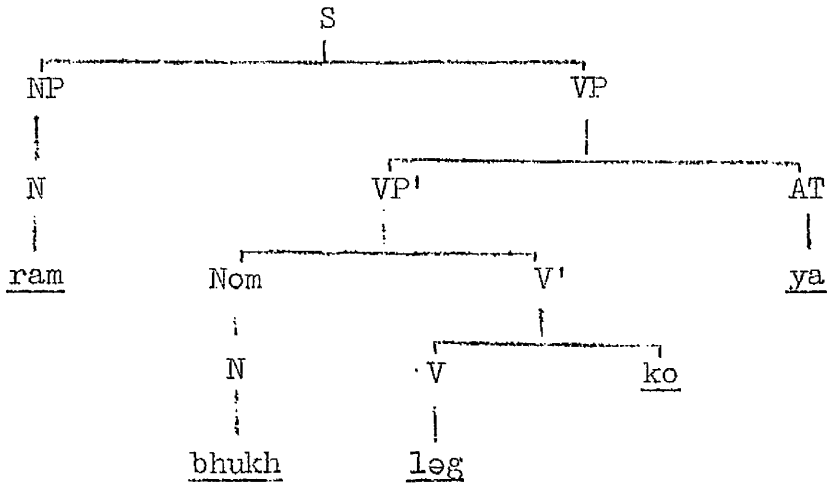
$$\rightarrow\rightarrow\rightarrow \quad X - N_1 - W - N_2 + ko - V - Y$$

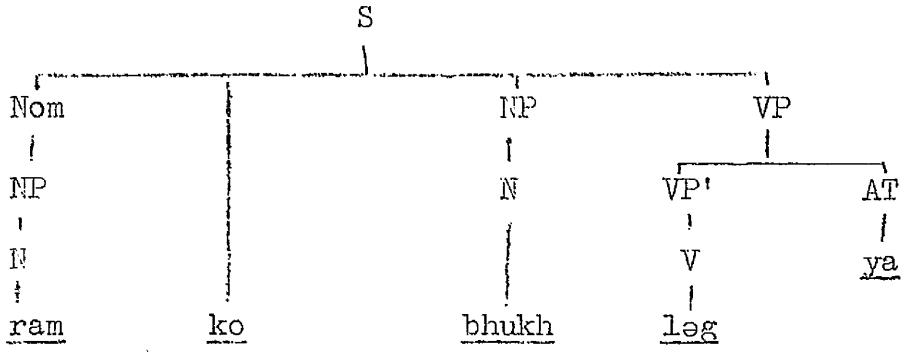
$T_{2.1}$ Nom shift

$$X - N_1 - W - N_2 + ko - V - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N_2 + ko - W - N_1 - V - Y$$

The above transformations will result in the following trees:





The application of appropriate concord rules and phonological rules will result in:

119. ram ko bhukh ləgi

"Ram was hungry."

T_3 Passive

$$X - N_1 \text{ (ne)} - N_2 + \text{se} - \text{(A) V} + \text{Passive} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N_1 + \text{se} - \text{(A) V} + \text{ya} + \text{ja} - Y$$

where: $N_1 = N_2$

This formulation of the passive transformation automatically excludes the 'original passive' intransitive verbs, as they will not have a syntactic feature [+Passive].

The following example illustrates the application of the above rule:

bəɽhəi ne - bəɽhəi se - kɑrsi - bəna + Passive - ya $\rightarrow\rightarrow\rightarrow$ T_3

bəɽhəi se - kɑrsi - bəna - ya + ja - ya

The above will be rewritten by the appropriate concord and phonological rules as:

120. bəɽhəi se kɑrsi bənai gəyi

"The chair was made by the carpenter."

T_4 mdM embedding:

$$\left.\begin{array}{ll} S_b: & N_1 - X - mdM - (mdR)\ N_2 - V_1 - Y \\ S_e: & N_3 + se - (mdR)\ N_4 - V_2 + ya + ja - Z \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$N_1 - X - N_3 + se - (mdR)\ N_2 - V_1 - Y$$

Where: a) $N_1 \neq N_3$

b) $(mdR)\ N_2 - V_1 - Y = (mdR)\ N_4 - V_2 - Z$

c) $V_1 = V_2 + caus$

The application of the above rule to:

S_b: ram -mdM- bəcce ko khana khılvata hɛ
"Ram -mdM- feeds the child"

S_e: nokər se bəcce ko khana khılaya jata hɛ
"The child is being fed by the servant"

yields the following causative sentence:

121. ram -nokər se- bəcce ko khana khılvata hɛ
"Ram makes the servant feed the child"

Appropriate morphophonemic rules specify the causative forms of the verb by rewriting V + caus as V_{caus} (e.g.: khılana + caus →→→ khılvana).

T_5 mdR embedding:

$$\left.\begin{array}{ll} S_b: & N_1 - X - N_2 - V_1 - Y - Asp - T_{aux} \\ S_c: & N_3 + ko - N_4 - V_2 - Z - Asp - T_{aux} \end{array}\right\} \rightarrow\rightarrow$$

$$N_1 - X - N_3 + ko - N_2 - V_1 - Y - Asp - T_{aux}$$

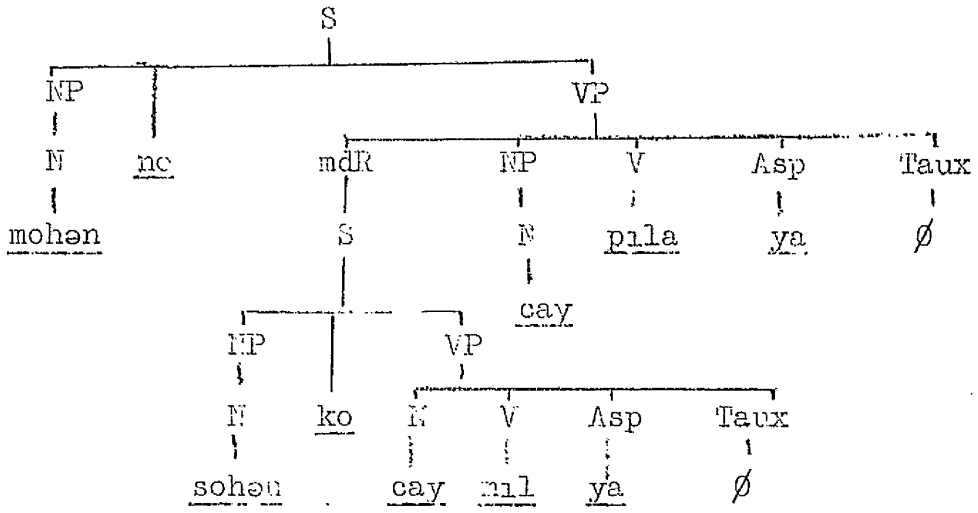
The above rule derives the following sentence:

122. mohən ne sohən ko cay pılayi
"Mohan gave Sohan some tea to drink"

from the following base and embedded sentences:

S_b	mohən ne -mdR- cay pılayi	"Mohan gave some tea -mdR- to drink"
S_c	sohən ko cay mılı	"Sohan had some tea"

Sentence 122 has the following tree structure:



The conditions necessary for the application of the rule are:

a) $N_1 \neq N_3$

b) $N_2 = N_4$

c) Asp and Taux have to be identical in S_b and S_c.

3.1.1 Nominalizations.

All the verbs that take an abstract noun as their subject, complement, predicate complement or patient noun also take a nominalized phrase in these positions. For instance, consider the following:

123. jhuṭh bolna pap hɛ "It is a sin to tell lies"
124. jəldi ɔṭhna əccha hɛ "It is good to rise early"
125. ɔsko ghər jana hɛ "He has to go home"
126. ram ko kɪtab kʰəridni hɛ "Ram has to buy a book"
127. mɛ̃ phəl khana nəhĩ cahta "I do not want to eat fruit"
128. vəh bəcce ka kʊtte se khelna dekhta rəha
"He kept looking at the child playing with the dog"
129. mã ko malti ka der se ghər loṭna bʊra ləga
"Mother felt unhappy at Malti's returning home late"
130. ram ne kam jəld səmapt kərna avəšyək səmjha
"Ram considered it necessary to finish the job quickly"

In the above sentences the nominals jhuṭh bolna, ghər jana, phəl khana, etc. occur in the following environments:

123 and 124 ---Pred + V

125 and 126 N + ko --- V

127 and 128 N ---V

129 N + ko --- Adj + V

130 N + ne --- Adj + V

The sub-classes of verb involved in 123 - 30 have already been discussed.

The comp symbol after NP in the environments (mdR) N --- V and Nom + N --- V signals an Adjective embedding in the following manner:

	mã ko film -md- ləgi	"Mother found the film -md"
	film bəri thi	"The film was bad"
131.	mã ko film bəri ləgi	"Mother found the film bad"
	mẽ ne ram ko -md- paya	"I found Ram -md"
	ram svəsth tha	"Ram was healthy"
132.	mẽ ne ram ko svəsth paya	"I found Ram healthy"

Note also that all the transitive verbs that take a nominalized phrase as their patient noun are the ones which do not have a deletable patient noun. Therefore an md is postulated for verbs exemplified by sentences 123 - 30 and this md is replaced by the nominalization when the strings characterized by it undergo the following transformation:

T_6 Nominalization:

$$\left.\begin{array}{ll} S_b: & X - md_{[+abstract]} - Y \\ S_c: & N - Z - V\ (Operator) - Asp - Taux \end{array}\right\} \rightarrow\rightarrow$$

$$X - N + Gen + Z + V\ (Operator) + na - Y$$

3.1.2 Parallel to attributive adjective + noun constructions in Hindi there are constructions that involve a participial (phrase) and a noun, e.g.:

153. lal kɪtab meri hɛ "The red book is mine"
154. mez pər pəṛi hʊi kɪtab meri hɛ
"The book lying on the table is mine"
155. sʊndər phulõ ko mət toṛo "Do not pluck the beautiful flowers"
156. khɪlte hʊe phulõ ko mət toṛo
"Do not pluck opening flowers"
157. kali moṭər lal bətti dekhte hi rʊk gəyi
"The black car stopped as soon as it saw the red lights"
158. tez bhagti hʊi moṭər lal bətti dekhte hi rʊk gəyi
"The car travelling fast stopped as soon as it saw the red lights"
159. alsi nʊkər so rəha tha "The lazy servant was asleep"
160. kəṛi mehnət se thəka hʊa kɪsan so rəha tha
"The peasant tired of hard work was asleep"

The similarity between adjectives and participial phrases extends to the relative clauses too:

161. jo nʊkər alsi tha, vəh so rəha tha
"The servant who was lazy was asleep"
162. jo kəṛi mehnət se thək gəya tha vəh kɪsan so rəha tha
"The peasant who was tired of hard work was asleep" etc.

The participial phrases occur also in predicative position, e.g.

143. kɪsan kəɣi mehnət se thəka hɑa tha
"The peasant was tired of hard work"

144. kɪtab meɾ pər pəɣi hɑi thi
"The book was lying on the table"

However, there are restrictions on the occurrence of participial phrases in predicative position, which are discussed below. We shall consider first imperfect participial phrases.

145. nokər bazar jata tha "The servant was going to the market"

* 145a. nokər bazar jata hɑa tha

but 146. bazar jata hɑa nokər... "The servant going to the market..."

147. ghoɣa tez dɔɣta hɛ "The horse runs fast"

* 147a. ghoɣa tez dɔɣta hɑa hɛ

but 148. tez dɔɣta hɑa ghoɣa... "The horse running fast..."

although:

* 145b. jo nokər bazar jata hɑa tha vəh...

* 147b. jo ghoɣa tez dɔɣta hɑa hɛ vəh...

Compare the behaviour of perfect participial phrases:

149. ləɣka ghər se bhaga tha "The boy had run away from home"

150. ləɣka ghər se bhaga hɑa tha
"The boy was one-who-had-run-away-from-home"

151. ghər se bhaga hɑa ləɣka...
"The boy who had run away from home..."

152. jo ləɣka ghər se bhaga (hɑa) tha vəh...
"The boy who had run away from home..."

153. kɑrsi kəmre mẽ pəɣi thi "The chair was standing in the room"

154. kɑrsi kəmre mẽ pəɣi hɑi thi
"The chair was standing in the room"

155. kəmre mẽ pəṛi hɑi kɔrsi..."the chair standing in the room..."

156. jo kɔrsi kəmre mẽ pəṛi hɑi thi vəh...
"The chair that was standing in the room..."

A closer look reveals differences even among the intransitive verbs we have been discussing so far:

157. nɔkər bazar gəya tha "The servant had gone to the market"

158. bazar gəya hɑa nɔkər... "The servant who had gone to the market..."

159. jo nɔkər bazar gəya hɑa tha vəh...
"The servant who had gone to the market..."

but 160. ghoṛa tez dəṛa tha "The horse had run fast"

* 160a. tez dəṛa hɑa ghoṛa...

* 160b. jo ghoṛa tez dəṛa hɑa tha vəh...

Verbs of action like ɔchəlna, kudna, khelna, jhulna, phãdna (to leap, jump, play, swing, spring), etc. behave similarly to dɔṛna in this respect.

In view of the above it is desirable to derive the participial phrases before formulating the rel embeddings and the transformations that derive the Adjective + Noun Phrase from the rel strings.

3.1.21 A dummy symbol which is necessary for the formulation of T_7 has been taken for granted, according to the conventions of IC (cf. 1.3, p. 13), in the following transformational rule. (The dummy has the features [+adj, +attributive]).

T_7 Adj embedding:

$$S_5: \quad \left.\begin{array}{l} X - N_1 - md_{[+Adj]} - Y \\ W - N_2 - Z + V - ta - Taux \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - Z + V + ta + hɔa - Y.$$

Where: a) $N_1 = N_2$

b) Z does not contain neg

Notice that the above rule will yield starred sentences such as 145a and 147a on p. 70, which is objectionable. The same difficulty arises with the introduction of a restricted class of Adjectives in predicative position by the CS rules, as they occur only in the attributive position, e.g.:

161. vəhã cənd log the "There were a few people there"

* 161a. vəhã log cənd the

162. ram mera cəcera bhai hɛ "Ram is my cousin"

* 162a. mera bhai ram cəcera hɛ

One way of accounting for such adjectives is to introduce these in pre-nominal position in the CS rules, and then imperfect participial phrases such as those in sentences 146 and 148 on p. 70 could be introduced by embedding them in the position of a dummy representative of such adjectives. Such adjectives will not be discussed any further here.

3.1.22 Before formulating the rules for the perfect participial phrases, it is necessary to note that the intransitive and transitive verbs behave quite differently with regard to these:

163. bəccə kəmrɛ mɛ̃ soya hɛ "The child is asleep in the room"

164. kəmrɛ mɛ̃ soya hɔ̃a bəccə...
"The child who is asleep in the room..."

165. ləṛka fərš pər bəṭha hɛ "The boy is seated on the floor"

166. fərš pər bəṭha hɔ̃a ləṛka...
"The boy seated on the floor"

but 167. dhobi ne kəpṛe dhoye "The dhobi washed the clothes"

* 167a. kəpṛe dhoya hɔ̃a dhobi...

168. kəvɪ ne məhakavy lɪkha "The poet wrote an epic"

* 168a. məhakavy lɪkha hɔ̃a kəvɪ...

although the following are possible:

169. dhobi ke dhoye hɔ̃e kəpṛe...
"The clothes washed by the dhobi..."

170. kəvɪ ka lɪkha hɔ̃a məhakavy...
"The epic written by the poet..."

and the following sets of relative clauses are also possible:

171. jɪs dhobi ne kəpṛe dhoye vəh...
"The dhobi who washed the clothes..."

172. jo kəpṛe dhobi ke dhoye hɔ̃e hɛ̃ ve...
"The clothes that the dhobi washed..."

173. jɪs kəvɪ ne məhakavy lɪkha vəh...
"The poet who wrote the epic..."

174. jo məhakavy kəvɪ ka lɪkha hɔ̃a hɛ vəh...
"The epic that the poet wrote..."

The following rules are formulated to account for the phenomena discussed above:

T_8 Adj embedding:

S_b: $X - N_1 - md_{[+adj]} - Y$

S_e: $N_2 - ko - N_3 - V - ya - Taux$ $\rightarrow\rightarrow\rightarrow$

$X - N_1 - N_2 + ko + V + ya + hoa - Y.$

Where: $N_1 = N_3$

$T_{8.1}$ Adj embedding:

S_b: $X - N_1 - md_{[+adj]} - Y$

S_e: $N_2 - ne - Z - N_3 - V - ya - Taux$ $\rightarrow\rightarrow\rightarrow$

$X - N_1 - N_2 + Gen + Z + V + ya + hoa - Y$

Where: $N_1 = N_3$

$T_{8.2}$ Adj embedding:

S_b: $X - N_1 - md_{[+adj]} - Y$

S_e: $N_2 - N_3 - V - ya - Taux$ $\rightarrow\rightarrow\rightarrow$

$X - N_1 - N_2 + Gen + V + ya + hoa - Y$

Where: a) $N_1 = N_3$

b) $V = V_{[+NP, -nc]}$

The above transformations will specify strings of the following type:

T_8 175. coṭ ram ko ləgi hui hɛ "Ram is hurt"

$T_{8.1}$ 176. məhakavy kəvı ka lıkha hœa hɛ
"The epic is written by the poet"

$T_{8.2}$ 177. kıtab ram ki layi hœi hɛ "The book has been brought by Ram"

$T_{8.3}$ Adj embedding:

$$\left.\begin{array}{ll} S_b: & X - N_1 - md_{[+adj]} - Y \\ S_c: & N_2 - Z - V_{[-PP,\ +stative]} - ya - Tense \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - Z + V_{[-PP,\ +stative]} + ya + hœa - Y$$

Where: a) X may be null

b) $N_1 = N_2$

3.1.3 Another type of Adjectival derived from verbs in Hindi is exemplified in the following sentences:

178. mere pəṛos mẽ rəhnevala pərıvar japan se aya hɛ
"The family living next door to me comes from Japan"

179. nav cəlanevale ləṛke ne əcanək ḍāṛ rəkh di
"The boy rowing the boat suddenly shipped oars"

180. pərikṣa mẽ prəthəm anevale chatr ko pəreskar mılega
"The student who comes first in the examination will get a prize"

The following rules are formulated to derive such adjectivals:

T_9 Adj embedding:

$$\left.\begin{array}{ll} S_b: & X - N_1 - md_{[+adj]} - Y \\ S_e: & N_2 - Z - V\ (Operator) - Asp - Taux \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - Z + V\ (Operator) + nc + vala - Y$$

Where: a) $N_1 = I_2$

b) $V = V \begin{bmatrix} [-NP] \\ [+NP, +ne] \\ [+Pred] \end{bmatrix}$

$T_{9.1}$ Adj embedding:

$$\left.\begin{array}{ll} S_b: & X - N_1 - md_{[+adj]} - Y \\ S_e: & N_2 + ko - N_3 - V\ (Operator) - Z \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - N_2 + ko + V\ (Operator) + ne + vala - Y$$

Where: $N_1 = N_3$

The above transformations will yield the following:

T_9 181. lərka nav cəlanevala hɛ "The boy has to row the boat"

182. ram šyam se bhikhari ko pəse dilvanevala he "Ram is going to make Shyam give some money to the beggar"

183. gvala dudh lanevala hɛ "The dairyman is going to bring some milk"

184. radha ɪs naṭək ki nayɪka bənnevali hɛ
"Radha is going to be the heroine of this play"

185. meri bəhən jəld hi yəhã anevali hɛ
"My sister is going to arrive here soon"

186. bəcca əb sonevala hɛ "The child is about to sleep now"

$T_{9.1}$ 187. goli hɪrəṇ ko ləgnevali hɛ
"The bullet is about to hit the deer"

188. nɔkri bhai ko mɪlnevali hɛ
"Brother is going to get a job"

3.1.4 At this point the rules for embedding relative clauses can be formulated, which in turn yield adjective + noun phrases.

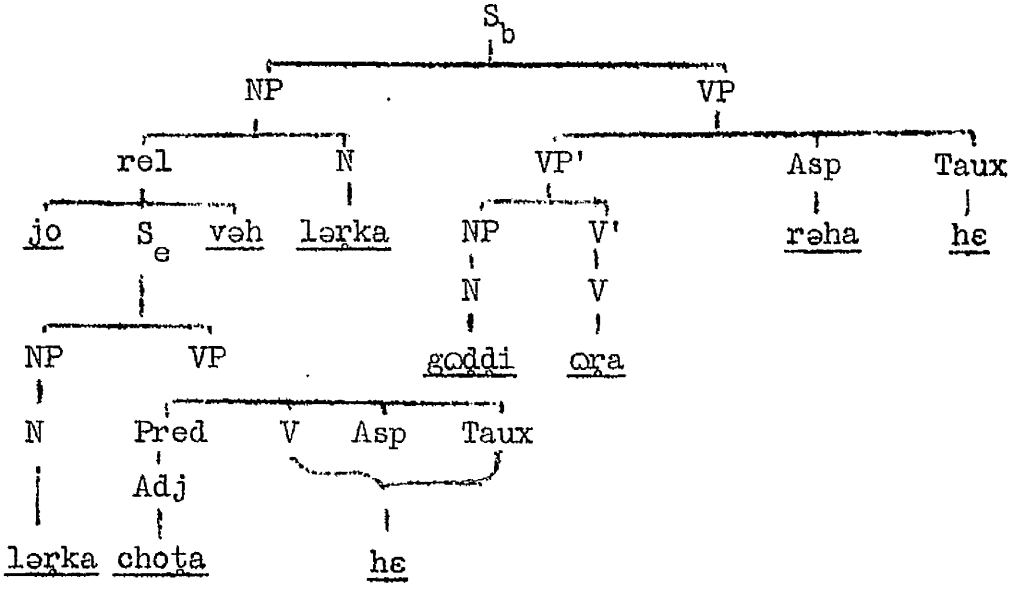
T_{10} rel embedding:

$$\left.\begin{array}{ll} S_b: & X - rel - N_1 - Y \\ S_c: & N_2 - Adj_{[+attr]} - Z \end{array}\right\} \rightarrow\rightarrow$$

$$X - jo + N_2 + Adj_{[+attr]} + Z + vəh - N_1 - Y$$

Where: $N_1 = N_2$

The above transformation generates the following:



That is:

S_b: rel - lər̥ka gɔ̃d̥d̥i ɔ̃r̥a rəha hɛ
"The - rel - boy is flying the kite"

S_e: lər̥ka choṭa hɛ "The boy is small"

→→→

jo lər̥ka choṭa hɛ vəh lər̥ka gɔ̃d̥d̥i ɔ̃r̥a rəha hɛ
"The boy who is small is flying a kite".

Now a deletion transformation deletes the repeated N of the derived string:

$T_{10.1}$ $\quad X - jo + N_2 + Adj_{[+attr]} + Z + vəh - N_1 - Y$ →→→

$$X - jo + Adj_{[+attr]} + Z + vəh - N_1 - Y$$ [1]

---

[1] Sentences such as jo lər̥ka vəhɑ̃ bɛṭha hɔa hɛ, vəh kəvɪtaɛ̃ lɪkh rəha hɛ (The boy, who is sitting there, is writing poems) are not considered here, as they are not relevant for the discussion of Adjectivalizations. The same is true of sentences like jɪs kəvɪ ne məhakavy lɪkha, ɔsne ɔpənyas lɪkhne ki bhi ceṣṭa ki (The poet, who wrote an epic, also attempted to write a novel).

Another deletion transformation reduces the rel to Adj, yielding Adj + Noun phrase:

$T_{10.2}$ $\quad X - jo + Adj_{[+attr]} + Z + vəh - N - Y \quad \rightarrow\rightarrow\rightarrow$

$X - Adj_{[+attr]} - N - Y$

The following example illustrates how these transformations are applied to generate the underlined string in:

189. <u>vəhɑ̃ bəʈha hɔ̃a ləṛka</u> kəvɪtaɛ̃ lɪkh rəha hɛ
"The boy sitting there is writing poems"

ləṛka vəhɑ̃ bəʈha hɛ

ləṛka vəhɑ̃ bəʈha hɔ̃a hɛ ⟵ $T_{8.3}$ - Adjectivalization

jo ləṛka vəhɑ̃ bəʈha hɔ̃a hɛ vəh ləṛka ⟵ T_{10} - rel embedding

jo vəhɑ̃ bəʈha hɔ̃a hɛ vəh ləṛka ⟵ $T_{10.1}$

vəhɑ̃ bəʈha hɔ̃a ləṛka ⟵ $T_{10.2}$

3.2 Adverbializations:

The following adverbial phrases derived from verbs are common in Hindi:

190. əndha bhɪkhari gata hɔ̃a bhikh mɑ̃g rəha tha
"The blind beggar was singing while he begged"

191. dərbari ne sɪr jhɔ̃kaye hɔ̃e raja ko prəṇam kɪya
"The courtier greeted the king with bowed head"

192. cor pəhredar ko jəga dekh kər khısək gəya
"The thief slipped away when he saw the guard awake"

193. khoya hœa bəṭœa loṭane pər œsne ləṛke ko ınam dıya
"She rewarded the boy when he returned her the purse that she had lost"

The participial phrases will be considered first, and then the forms such as those in sentences 192 and 193 will be discussed.

3.2.1 Imperfect participial phrases occur in sentences such as the following:

194. məzdurınẽ chət kuṭti hœi gana ga rəhi thĩ
"The women labourers were singing as they levelled the roof"

195. Šer gərəjta hœa Šıkar pər ṭuṭ pəṛa
"The lion pounced upon his prey roaring"

196. bœcca rote rote so gəya "The child fell asleep crying"

197. cəlte cəlte œske pãvõ mẽ chale pəṛ gəye
"His feet were blistered because of walking"

198. Šam ḍhəlte ḍhəlte vəh ghər pəhõc gəya
"He reached home before night fell"

199. ḍakṭər ke pəhõcte pəhõcte rogi ki hɑlət bigəṛ goyi
"The condition of the patient worsened before the doctor could reach him"

200. əndər ate hi œsne bətti jəlai
"He lit a lamp as soon as he came in"

201. Šıkṣək ko dekhte hi chatrõ ne cœppi sadh li
"As soon as they saw the teacher the students became quiet"

The participial phrases in sentences 194 and 195 are in agreement in number and gender with the preceding noun. In the nominative-ergative type sentences the participial phrases occur only in their indeclinable form:

202. məzdurɪnõ ne chət kuṭte hœe gana gaya
"The women labourers sang while they levelled the roof"

In all other types of sentence the participial phrases occur either in their declinable form, when they are in agreement with their subject noun, or in their indeclinable form. Incidentally, the possibility of the declinable form gives rise to various kinds of ambiguity, as, in its declinable form, the adverbial is identical to the adjectival, e.g.:

203. ṭren cəlti hœi əcanək rɔk gəyi
"The train which was moving stopped suddenly"
or "The train stopped suddenly while moving"[2]

The following, however, have only one reading: the second.

204. gaṛi cəlte hœe əcanək rɔk gəyi
"The vehicle stopped suddenly while moving"
205. ɔsne cəlte hœe yəh bat kəhi thi
"He said this while leaving"
206. ɔsne hɔ̃ste hœe yəh bat kəhi thi
"He said this laughing"

---

[2]That is: cəlti hœi ṭren - əcanək - rɔk gəyi
ṭren - cəlti hœi - əcanək - rɔk gəyi

Similarly:

207. vəh khana pəkati hɔi lərki se batẽ kərti rəhi

has the following readings:

a. "She kept talking to the girl while cooking"

b. "She who was cooking kept talking to the girl"

Parallel to sentences on pp. 80 - 1, there are sentences such as the following:

208. jəb məzdurıne̊ chət kuṭ rəhi thĩ, təb ve gana ga rəhi thĩ
"The women labourers were singing while they levelled the roof"

209. jəb tək šam ḍhəli, təb tək vəh ghər pəhõc gəya
"He arrived home before nightfall"

210. jyõ hi vəh əndər aya, tyõ hi ɔsne bətti jəlai
"As soon as he came in he lit a lamp"

211. jəb vəh cəl rəha tha, təb ɔsne yəh kəha tha
"He had said this while he was leaving"

The above sentences are paraphrases of sentences 194, 198, 200 and 205. Note that the hi in 200 is not the emphatic particle hi, as there is no non-emphatic:

* əndər ate ɔsne bətti jəlai

Similarly, the bhi in the following is not an emphatic particle:

212. mere pəkarne pər bhi vəh nəhĩ aya
"He did not come although I called him"

as the following is not an unemphatic form of 212 but a different sentence entirely:

215. mere pɔkarne pər vəh nəhĩ aya

"He did not come {because / when} I called him"

Compare the following:

* mere pɔkarne pər bhi vəh aya

214. mere pɔkarne pər vəh aya

"He came {because / when} I called him"

The characteristics of 212 and 213 are reflected in:

215. yədyəpɪ mɛ̃ ne ɔse pɔkara, {to / phɪr} bhi vəh nəhĩ aya

"Although I called him he did not come"

216. {cũkɪ / jəb} mɛ̃ ne ɔse pɔkara, {ɪslɪye / to} vəh nəhĩ aya

"{Because / When} I called him, {(therefore) / (then)} he did not come"

Compare also:

217. ɔske cəle jane {se / pər} səb dɔkhi hɔe

"Everyone became unhappy {because / when} he left"

218. {cũkɪ / jəb} vəh cəla gəya, {ɪslɪye / to} səb dɔkhi hɔe

"{Because / When} he left everyone became unhappy"

But 219. ɔske cəle jane $\left\{\begin{matrix}se\\pər\end{matrix}\right\}$ səb dɑkhi hõge

"Everyone will be sorry $\left\{\begin{matrix}if\\when\end{matrix}\right\}$ he leaves"

220. $\left\{\begin{matrix}əgər\\jəb\end{matrix}\right\}$ vəh cəla jaɛga, to səb dɑkhi hõge

"$\left\{\begin{matrix}If\\When\end{matrix}\right\}$ he leaves, (then) everyone will be sorry"

Thus, cũkɪ...ɪslɪye is restricted to the non-future tenses, and əgər...to to the future tenses, but jəb...to is not restricted in this way.

As the selection restrictions between the subordinate clauses and the main clauses in the above sentences (i.e. the class of verb which occurs in the subordinate and main clauses, the Aspect and Tense restrictions, etc.) are mirrored in the sentences with the adverbial phrases, it is profitable to derive the adverbial phrases from the subordinate clauses discussed above.

The adverbial phrases are therefore derived in the following manner:

The following rules are added to the base component:

2.8.1 manner →→ $\left\{\begin{matrix}yədyəpɪ + S, + \left\{\begin{matrix}to\\phɪr\end{matrix}\right\} bhi & \text{"Although"}\\ \left\{\begin{matrix}cũkɪ + S, + ɪslɪye\\əgər + S, + to\end{matrix}\right\} & \text{"Because"}\\ .....\end{matrix}\right.$

(Note that: S must contain $\left\{\begin{matrix}e(ga)\\ɲa\end{matrix}\right\}$ in the env. əgər --- to

S must contain $\left\{\begin{matrix}ta\\ɲa\\rəha\end{matrix}\right\}$(Taux) in the env. cũkɪ --- ɪslɪye.)

2.8.2 tm →→ $\begin{cases} \text{jyõ hi + S, + tyõ hi} & \text{"As soon as"} \\ \text{jəb + S, + təb} & \text{"While"} \\ \text{jəb tək + S, + təb tək} & \text{"Before"} \\ \text{jəb + S, + to} & \text{"When"} \\ \text{.....} \end{cases}$

(Note that: S must contain rəha + Taux in the env. jəb --- təb)

The "," in the above rules represents intonational features, and the "....." represents choices which have not been mentioned here.

T_{11} Time adverbial: "As soon as"

X - jyõ hi + N + W + V + Asp + Taux, + tyõ hi - Y →→→

X - N + Gen + V + te + hi - Y

Where: Asp + Taux must be identical in both the base and the embedded sentence.

T_{12} Time adverbial: "While"

X - N_1 -(PP)- jəb + N_2 + W + V + rəha + Taux, + təb - Y →→→

X - N_1 - $\begin{bmatrix} PP \\ \emptyset \end{bmatrix}$ - N_2 + Gen + W + V + $\begin{bmatrix} \text{te hɑɛ} \\ (\text{ta hɑɑ}) \\ \text{te hɑɛ} \end{bmatrix}$ - Y

Note that: PP = $\begin{cases} nɛ \\ sɛ \\ kɔ \end{cases}$

Where: a) $N_1 = N_2$

b) Taux is identical in both the base and the embedded sentence.

T_{13} Time adverbial: "Before"

$$X - jəb\ tək + N + W + V + Asp + Taux, + təb\ tək - Y \rightarrow\rightarrow\rightarrow$$

$$X - N + Gen + W + V + \begin{Bmatrix} te\ hœe \\ te + V + te \end{Bmatrix} - Y$$

Where: a) Asp and Taux are identical in both the base and the embedded sentence.

b) $V = V_{[+temp,\ +time]}$ - e.g.: <u>rəhna</u>, <u>hona</u> (to last, happen), etc.

These rules generate strings such as the following:

T_{11} $X - ram + ke + ate + hi - Y$

T_{12} $X - ram + ne - ram + ke + celte + hœe - Y$

T_{13} $X - šam + ke + \begin{Bmatrix} ḍhəlte\ hœe \\ ḍhəlte\ ḍhəlte \end{Bmatrix} - Y$

N_2 + Gen has to be deleted from the string generated by T_{12} and the elements Gen and <u>hœe</u> from the string generated by T_{15} to derive:

$X - ram - ne - celte + hœe$

$X - šam + ḍhəlte - Y$
or: $X - šam + ḍhəlte + ḍhəlte - Y$

All these deletions are effected by rules $T_{24,\ 25}$

(cf. p. 95)

3.2.2 The following sentences exemplify the adverbial use of perfective participial phrases:

221. am pəɽe-pəɽe səɽ gəye
"The mangoes got rotten just lying there"

222. vəh ghuṭnõ pər mũh ṭikaye beṭhi rəhi
"She kept sitting there with her chin resting on her knees"

223. vəh pəɽe-pəɽe socta rəha
"He kept thinking while lying there"

224. kɔtta mũh mẽ roṭi ka ṭukɽa dəbaye ja rəha tha
"The dog was walking with a piece of bread in his mouth"

225. kɔch din bite raja phir bən ko gəye
"The King went to the forest again after a few days had elapsed"

226. ɔsko dilli gəye do sal ho gəye
"Two years have elapsed since he went to Delhi"

227. ɔsko nəhaye do din ho gəye
"Two days have elapsed since he had a bath"

The participial phrases in sentences 225 - 7 have a clear reference to time. The others are manner adverbials. All these could be derived by the following transformations:

T_{14} Manner adverbial:

$$\left.\begin{array}{l} S_b: \quad X - N_1 - md_{[+manner]} - V^1_{[+process/action]} - Y \\ S_e: \quad N_2 - W - V^2_{[-NP,\ +stative]} - ya - Taux \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - W + V^2 + ye + V^2 + ye - V^1 - Y$$

Where: a) $N_1 = N_2$

b) W does not contain neg.

T_{15} Manner adverbial:

S_b: $X - N_1 - md_{[+manner]} - Y$

S_e: $N_2 - W - V_{[+NP,\ +stative]} - ya - Taux$

$\rightarrow\rightarrow\rightarrow$ $X - N_1 - W + V_{[+NP,\ +stative]} + ye + hoe - Y$

where: a) $N_1 = N_2$

b) W does not contain neg.

T_{16} Time adverbial: "Ago"

S_b: $X - N - md_{[+time]} - Y$

S_e: $N_{[+temp]} - V_{[+time]} - ya - Taux$

$\rightarrow\rightarrow\rightarrow$ $X - N - N_{[+temp]} + V_{[+time]} + ye - Y$

T_{17} Time adverbial: "Since"

S_b: $X - N_{[+temp]} - md_{[time]} - Y$

S_e: $N - W - V - ya - Taux$

$\rightarrow\rightarrow\rightarrow$ $X - N_{[+temp]} - N + ko + W + V + ye - Y$

where: W does not contain neg.

The following types of time adverbial phrase are generated by the above transformations:

T_{16} 228. vəh do dɪn hœ yəhɑ̃ aya tha.

"He came here two days ago."

T_{17} 229. do dɪn ɔsko yəhɑ̃ aye hœ.

"Two days have elapsed since he came here."

T_{18}: deletion of hœ

$$X - \begin{bmatrix} V_{[+time]} + te + hœ - N \\ V_{[+NP,\ +stative]} + ye + hœ \end{bmatrix} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - \begin{bmatrix} V_{[+time]} + te - N \\ V_{[+NP,\ +stative]} + ye \end{bmatrix} - Y$$

The adverbial phrases generated by T_{12} and T_{15} undergo the above transformation optionally, and the resulting strings will be as follows:

T_{15} vəh hath mɛ̃ kɪtab lɪye hœ a rəha tha.

T_{18} vəh hath mɛ̃ kɪtab lɪye a rəha tha.

"He was coming with a book in his hand."

3.2.3 Another type of adverbial phrase is exemplified by the following sentences:

232. ve khana kha kər naṭək dekhne gəye.
"They went to see the play after having a meal."

233. age ja kər ɑnhẽ ek gãv dikhai diya.
"Having gone further they happened to see a village."

234. bhai ko dekh kər ɑska mon šant hɑa.
"Having seen his brother he felt relieved."

235. šer pəkəṛ kər pĩjṛe mẽ ḍal diya gəya.
"Having been caught the lion was put in a cage."

The te + hɑe adverbial phrases in general refer to the simultaneity of events, the kər phrases in general specify the succession of events. All the above examples, however, differ in the type of relationship between the kər phrase and the finite verb phrase. In 232, the subject of both the V + kər and the finite verb phrase are the same:

232 a. ɑnhõne khana khaya. "They ate a meal."

232 b. ve naṭək dekhne gəye. "They went to see the play."

But, in sentence 233, the subject of the kər phrase is identical with the N of the Nom element of the matrix sentence, e.g.:

233 a. ve age gəye. "They went ahead."

233 b. ɑnhẽ ek gãv dikhai diya.
"A village became visible to them."

In 234 the subject of the constituent sentence and the N of the possessive form modifying the subject N of the matrix sentence are identical:

234a. ɔsne bhai ko dekha "He saw his brother"
234b. ɔska mən ʂant hɑa "His mind was relieved"

In sentence 235 the underlying strings are passive:

235a. ʂer pekɽa gəya "The lion was caught"
235b. ʂer pĩjɽe mẽ ɖal dıya gəya
"The lion was put in a cage"

All the above phenomena are accounted for by the following T rules:

T_{19} Time adverbial: "Subsequent action"

$$\left.\begin{array}{ll} S_b: & X - N_1\ (PP) - md_{[+time]} - U - V_1 - Y \\ S_c: & N_2 - W - V_2 - Z \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - W + V_2 + kər - U - V_1 - Y$$

Where: a) $N_1 = N_2$

b) $V_1 \neq V_{[+copula]}$

$T_{19.1}$ Time adverbial: "Subsequent action (Passive)"

S_b: $X - md_{[+time]} - N_1\ (comp) - V_1 + ya + ja - Y$

S_c: $W - N_2\ (comp) - V_2 + ya + ja - Y$

$\rightarrow\rightarrow\rightarrow$

$X\ (comp) - V_2 + kar - N_1\ (comp) - V_1 + ya + ja - Y$

Where: $N_1 = N_2$

3.2.4 The following sentences contain yet other types of adverbial phrase derived from verb phrases:

236. ɔsne əxbar lane ke liye pese mãge
"He asked for money in order to get a newspaper"

237. yəh kələm sirf tumhare likhne ke liye hɛ
"This pen is only for you to write with"

238. ɔsne mɔjhe pine ko pani diya
"He gave me water to drink"

239. ɔske cəle jane pər səb so gəye
"Everyone went to sleep when he was gone"

240. ɔske rone pər səbko dɔkh hɔa
"Everyone was sorry when he cried"

241. ɔske rone se səbko dɔkh hɔa
"Everyone was sorry because he cried"

242. ɔske cəle jane se səb xɔš the
"Everyone was happy because he was gone"

243. ɔske rone pər bhi kisi ko dɔkh ne hɔa
"No-one was sorry although he cried"

Except for the examples in sentences 239 and 240, where the adverbial phrases have a clear time reference, all are

manner adverbials. In examples 236 - 8, the adverbial phrases consist of a noun derived by T_6 (cf. p. 68) from an underlying verb phrase and a postposition ko or a compound postposition ke liye:

(236) əxbar lane + ke liye

(237) sirf tumhare likhne + ke liye

(238) pine + ko

The other examples have already been discussed (cf. pp. 82 - 4). Phrases such as 236 - 8 above are derived by the following rule:

T_{20} Purpose adverbial:

$$\left.\begin{array}{ll} S_b: & X - N_1 - md_{[+\text{manner}, +\text{purpose}]} - U - V - Y \\ S_e: & W - N_2 - Z \end{array}\right\} \rightarrow\rightarrow$$

$$X - N_1 - N_2 + \left\{\begin{array}{l} \text{ke liye} \\ \text{ko} \end{array}\right\} - U - V - Y$$

Where: a) $N_2 = N + \text{Gen} + Z + V\ (\text{Operator}) + \text{na}$ (derived by T_6)

b) $V = V_{[+\text{temp}, +\text{time}]}$

Now a deletion transformation has obligatorily to delete the N + Gen of the constituent string from the result of T_{20} to prevent the generation of strings such as the following:

* ram ne mohən ke əxbar lane ke liye pəse mãge

* sita ne sita ke jane pər khana khaya

* mohən ke cəle jane se mohən ko dɔkh hɔa

This is done by the deletion transformation T_{24} (cf. p. 95).

Now the adverbial phrases exemplified by sentences 239 - 243 are derived by the following rules:

T_{21} Manner adverbial: "Although"

$$X - \text{yədyəpı} + N + W + V\ (\text{Operator}) - \text{Asp} + \text{Taux}, + \begin{Bmatrix}\text{to}\\ \text{phır bhi}\end{Bmatrix} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N + \text{Gen} + W + V + \text{na} + \text{pər} + \text{bhi} - Y$$

Where: Asp + Taux are identical in both the base and the embedded sentence, and either S_b or S_e contains the constituent neg.

T_{22} Manner adverbial: "Because"

$$X - N_1 + \text{ko} - \begin{bmatrix}\text{cũkı}\\ \text{əgər}\end{bmatrix} + N_2 + W + V\ (\text{Operator}) - \text{Asp} + \text{Taux}, - \begin{bmatrix}\text{ıslıye}\\ \text{to}\end{bmatrix} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N_1 + \text{ko} - N_2 + \text{ke} + W + V\ (\text{Operator}) + \text{na} + \text{se} - Y$$

Where: Asp + Taux are identical in both the base and the embedded sentence.

T_{23} Time adverbial: "When"

$$X - \text{jəb} + N + W + V\ (\text{Operator}) - \text{Asp} + \text{Taux}, + \text{to} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N + \text{Gen} + W + V\ (\text{Operator}) - \text{na} + \text{pər} - Y$$

Condition as in T_{22}.

Now the deletion transformation which deletes N + Gen or Gen is formulated as follows:

T_{24} Deletion of N + Gen:

$$X - N_1 - N_2 + Gen + W + V + \begin{bmatrix} ta + hœa \\ te + hœe \\ te + hi \\ te + V + te \\ (Operator) - na + \left(\begin{bmatrix} pər \\ se \\ ko \\ ke\ lıye \end{bmatrix} \right) \end{bmatrix} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N_1 - W + V + \begin{bmatrix} ta + hœa \\ te + hœe \\ te + hi \\ te + V + te \\ (Operator) - na + \left(\begin{bmatrix} pər \\ se \\ ko \\ ke\ lıye \end{bmatrix} \right) \end{bmatrix} - Y$$

Where: $N_1 = N_2$

T_{25} Deletion of Gen:

$$X - N_1 - N_2 + Gen + V \begin{bmatrix} te + hi \\ te + V + te \end{bmatrix} - Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N_1 - N_2 + V \begin{bmatrix} te + hi \\ te + V + te \end{bmatrix} - Y$$

Where: $N_2 = N_{[+temp]}$

e.g. dın, rat, šam (day, night, evening), etc.

The application of T_{25} is exemplified by the following:

vəh - šam + Gen + ḍhəlte hœ - ghər pəhõc gəya -- T_{18} →→→

vəh - šam + Gen + ḍhəlte - ghər pəhõc gəya -- T_{25} →→→

vəh - šam + ḍhəlte - ghər pəhõc gəya

"He arrived home before nightfall"

3.5 A few problems related to the Adjectivalization and Adverbialization transformations formulated in the preceding pages are discussed in this section.

3.3.1 Rule $T_{8.1}$ (cf. p. 74) generates adjectival phrases of the following type:

244. kɪtab - ram ki pəṛhi hœi - hɛ
"The book is the one read by Ram"

245. kəpṛe - dhobi ke dhoye hœ - hɛ̃
"The clothes are the ones washed by the dhobi"

which, after they have undergone the rel embedding and reduction rules (cf. T_{10} - $T_{10.2}$, pp. 77 - 9), yield Adj + N phrases of the following form:

246. ram ki pəṛhi hœi kɪtab "The book read by Ram"

247. dhobi ke dhoye hœe kəpṛe "The clothes washed by the dhobi"

It has already been said that phrases such as the following, from the perfect participial form of the transitive

verb, are impossible (cf. p. 73):

a. * kɪtab pəṛha hœa ram
b. * kəpṛe dhoya hœa dhobi

although the following imperfect participial phrases are possible:

248. kɪtab pəṛhta hœa ləṛka "The boy reading the book"
249. kəpṛe dhota hœa dhobi "The dhobi washing clothes"

A sub-class of transitive verbs, however, permits perfect participial phrases of the following type:

250. nokər ne kam sikha "The servant learnt the work"
251. admi ne pajama pəhna "The man wore pajamas"
252. kam sikha hœa nokər "The servant who has learnt the work"
253. pajama pəhna hœa admi "The man wearing pajamas"

This sub-class consists of verbs such as:

kəmana, janna, pana, səməjhna, oṛhna, pina

(to earn, know, obtain, understand, cover oneself with, drink) etc.

It is significant that this sub-class is precisely the class of transitive verbs which does not operate in CVS of V +dena type. It is also interesting to note that the CV with dena has the semantic feature corresponding to the parasmaipada use of Sanskrit verbs (cf. Guru: p. 398), whereas the CV with lena has the opposite

semantic feature corresponding to the ātmanepada of Sanskrit verbs. It is claimed that all Hindi verbs have the semantic features ātmane or parasmai or both, and only the sub-class of transitive verbs that is marked with the feature ātmane is absent from the V + dena CV, and undergoes the transformation that yields the adjectival phrases exemplified by sentences 252 and 253. All verbs in the lexicon, therefore, have the features (ātmane) or (parasmai) assigned to them.

A further reservation is necessary before the formulation of the rule to generate the adjectival phrases under discussion. Verbs of action, though possessing the semantic marker (ātmane) do not yield adjectival phrases of the above-mentioned type, e.g., the following are not possible:

* dhən luṭa hœa ḍaku
* ləḍḍu china hœa ləṛka

from underlying sentences such as:

254. ḍaku ne dhən luṭ lıya.
"The robber robbed the precious possessions."

255. ləṛke ne bəhən ka ləḍḍu chin lıya.
"The boy snatched sweets away from his sister."

It is necessary to assign a semantic marker that

would specify that a verb of action, process etc. also has the reading of a stative verb in the perfective, before this reservation can be explained. In the context of discussing the perfect participial adjectival phrase, it has already been pointed out that certain intransitive verbs such as dɔrna, jhulna (to run, swing), etc. do not undergo the transformation which generates such phrases. These verbs are assigned a feature [-stative] to exclude them from T_7 (cf. p. 72). The transitive verbs that possess the [+ātmane] feature are also assigned the feature [±stative] and only verbs with [+stative] undergo the following transformational rule. It is interesting to note that khana and socna (to eat, think) have the feature [-stative] whereas pina and səmǝjhna (to drink, understand) have [+stative]. Although the markers (ātmane) or (parasmai) are, in general, relevant only to transitive verbs, and the features [±stative] to intransitive verbs, the former set is also relevant to a small sub-class of intransitive verbs, just as the latter set has been found useful to characterize a sub-class of transitive verbs. This sub-class of intransitive verbs consists of verbs such as hə̃sna, rona, mɔskərana (to laugh, cry, smile), etc. which operate in CVs of the V + dena type. Note also that only transitive verbs with a semantic marker (parasmai) have a corresponding causative form.

The relevant adjectivalization rule can now be

formulated in the following manner:

$T_{8.11}$ (to be applied before $T_{8.1}$)

S_b: $X - N_1 - md_{[+adj]} - Y$

S_e: $N_2 - (ne)\ Z - N_3 - V_{[-parasmai,\ +stative]} - ya\ (Taux)$

$\rightarrow\rightarrow\rightarrow\ X - Z + N_3 + V + ya + hœa - Y$

Where: $N_1 = N_2$

3.3.2 Sentences such as the following pose a problem:

256. yəh rasta mera cəla hœa hɛ
"This road is the one that I have walked upon."

257. yəh kəmra mera rəha hœa hɛ
"This room is the one in which I have lived."

258. œske mẽhdi rəce hath mera sɪr səhla rəhe the
"Her henna-smeared hands were massaging my head gently."

259. ɪs jəŋg ləge caku se gobhi nəhĩ kəṭegi
"The cauliflower can not be cut with this rusty knife."

The phrases:

260. mera cəla hœa rasta
261. mera rəha hœa kəmra
262. mẽhdi rəce hath
263. jəŋg ləga caku

are surely derived from the underlying strings:

264.	mẽ raste pər cəla	"I walked on the road."
265.	mẽ kəmre mẽ rəha	"I lived in the room."
266.	mẽhdi hath mẽ rəci	"The henna smeared the hand."
267.	jəŋg caku mẽ ləga	"The rust formed on the knife."

The first two are not generalizable, i.e., the following, though parallel to 264 and 265, do not yield phrases parallel to 260 and 261:

268.	mẽ pɑl pər cəla	"I walked on the bridge."
269.	mẽ səray mẽ rəha	"I lived in the inn."

The other two, i.e., 266 and 267, however, are generalizable. For instance:

270.	məhavər pãvõ mẽ ləga	"<u>məhavər</u> smeared the feet."
271.	məhavər ləge pãv	"The feet smeared with <u>məhavər</u>"
272.	kai pətthər pər jəmi	"The moss formed on the stone."
273.	kai jəma pətthər	"The moss-grown stone"

Intransitive verbs such as <u>ləgna</u>, <u>rəcna</u>, <u>jəmna</u> (to form, smear, grow) etc. which require a place adverbial, undergo some transformation, or, transformations, that yield the phrases exemplified by 262 - 63, 271 and 273. It is not quite clear how this is achieved in the case of <u>ləgna</u> and <u>jəmna</u>. <u>rəcna</u> is different

because, parallel to 266, there is the following sentence:

274. hath mẽhdi se rəce. "The hands were smeared with henna."

The verb rəcna thus has at least two readings, and it turns out that the string underlying 262 is not 266, but 274, which undergoes $T_{8.3}$, e.g.:

hath mẽhdi se rəce the ---- $T_{8.3}$ ---->
hath mẽhdi se rəce hœe the ---- T_{10} ---->
jo hath mẽhdi se rəce hœe the, ve hath ---- $T_{10.1}$ ---->
jo mẽhdi se rəce hœe the, ve hath ---- $T_{10.2}$ ---->
mẽhdi se rəce hœe hath

After two more deletion transformations have operated upon the last string, deleting first hœe, and then se, the result will be the phrase in 262. The deletion of the element hœa is necessary anyway to take care of phrases such as:

275. vəhã bɛṭha ləṛka "The boy sitting there" (cf. p.79)

Notice also that the deletion of hœa applies to all intransitive and transitive verbs with the feature [+stative]. The following T rule, therefore, is formulated:

$T_{10.3}$ deletion of <u>hœa</u> (to be applied after $T_{10.2}$)

$$X - Z + V_{[+\text{stative}]} + ya + hœa - N - Y \quad \rightarrow\rightarrow\rightarrow$$

$$X - Z + V + ya - N - Y$$

$T_{10.4}$

$$- \qquad X - Z - V + ta + hœa - N - Y \quad \rightarrow\rightarrow\rightarrow$$

$$X - Z - V + ta - N - Y$$

The second rule yields phrases such as:

276.	tez dɔṛta ghoṛa	"The horse running fast"
277.	dhime cəlti gaṛi	"The vehicle moving slowly"
278.	sota bəcca	"The sleeping child"
279.	gati cıṛıya	"The singing bird"

As phrases such as in 260 and 261 are not generalizable, they have not been discussed any further.

3.3.3 The problem that arises because of the following sentences also belongs to the discussion of adjectivalization and adverbialization:

280. sɪpahi ne cor ko tala toṛte dekha
"The constable saw the thief breaking the lock."

281. mɛ̃ ne ləṛke ko gate sɔna "I heard the boy singing."

282. ɔsne tote ko pĩjṛe mɛ̃ məra paya
"He found the parrot dead in its cage."

283. pəhredar ne kɛdi ko bhagte hɔe pəkṛa
"The guard caught the prisoner while escaping."

The CS rules already generate strings such as the following:

284. malɪk ne mali ko alsi səmjha tha
"The master had considered the gardener lazy."

285. mɛ̃ ɔsko əpna bhai manta hũ
"I consider him my brother."

286. raja ne gərib bramhəṇ ko divan bəna lɪya
"The king made the poor brhmin his minister."

287. grahək ko sɔda mɛ̃hga jɛ̃ca
"The customer found the merchandise expensive."

Certain transitive and intransitive verbs, such as the ones in sentences 284 - 7 above, require a nominal complement following their patient noun (e.g., 284 - 6) or Nom element (e.g., 287) (cf. CS rule 2.3, p. 47). Verbs like <u>səməjhna</u>, <u>manna</u> (to consider, accept) etc. then have a feature [+comp] which signals the embedding of adjectival (e.g. in sentence 282) or adverbial phrase (e.g., 280, 281 and 283). It is to be noted, however, that

the sub-class of verb of the type in examples 284 - 7 is not co-extensive with the sub-class in 280 - 3; for instance, bənana, manna, ləgna, jɛ̃cna,(to make, accept, appear, seem) etc. do not take the derived adjectivals or adverbials, and pəkəṛna (to catch) takes only derived adverbials. All these restrictions can be taken care of easily, so the following general rule is formulated:

T_{26} Verbal complement: (to be applied after T_{10})

$$\left.\begin{array}{l} S_b: \; X - N_1 - PP - U - N_2 - md_{[+comp]} - Y \\ S_e: \; W - Adj_{[\pm attr]} - Z \end{array}\right\} \rightarrow\rightarrow\rightarrow$$

$$X - N_1 - PP - U - N_2 - Adj_{[\pm attr]} - Y$$

(Note that PP = ne or ko)

3.4 The negative of the V + kər phrases (cf. T_{19}, p.91, and the discussion preceding it) of the time adverbial has to be discussed further. T_{19} generates sentences such as the following:

288. bəcca dudh pi kər so gəya
"The child went to sleep after drinking some milk."

289. ram kɪtab le kər cəla gəya
"Ram went away having taken the book."

Had the S_e contained a neg constituent, the result would not have been:

* bəcca dudh nə pikər so gəya

* ram kɪtab nə le kər cəla gəya

but,

290. bəcca dudh pɪye bɪna so gəya

"The child went to sleep without having drunk any milk."

291. ram kɪtab lɪye bɪna cəla gəya

"Ram went away without having taken the book."

A morphophonemic rule such as the following assigns the correct shape to the neg + V + kər string:

$T_{19.2}$ Morphophonemic rule:

$$X - neg + V + kər - Y \quad \rightarrow\rightarrow \quad X - V + ye + bɪna - Y$$

The rule regarding the pre-verbal position of bɪna belongs to the general discussion of emphasis, and hence, has not been discussed here.

3.5 The obligatory singulary transformations that the terminal strings resulting from the rules formulated so far must undergo before they can act as input to the phonological component are discussed below.

The following rules generate the interrogative, negative and imperative sentences. To generate the "yes-no" question, a sentence adverbial constituent (SADV) which will be generated by the first rule of the base component in a grammar of Hindi[3] has been taken for granted in the following rule.

T_{27} "yes - no" question:

$$K + SADV - NP + VP \quad \rightarrow\rightarrow\rightarrow \quad \left\{ \begin{matrix} \text{Intonation} \\ \text{kya} \end{matrix} \right\} NP + VP$$

To generate the Hindi "Wh" questions, the following K - attachment and K - incorporation rules will be necessary. The first of these has been formulated below, and only the items that must be generated by the second have been indicated:

T_{28} K - attachment:

$$K - X - L - Y \quad \rightarrow\rightarrow\rightarrow \quad X - K + L - Y$$

(Note that L = any major lexical category)

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[3] See Lexicon: p. 162.

T_{29} K - incorporation (morphophonemic rules)

K + koi	"someone"	=	kɔn	"who"
K + kɷch	"something"	=	kya	"what"
K + kəbhi	"some time"	=	kəb	"when"
K + kəhĩ	"some place"	=	kəhã	"where"
K + kɪsi tərəf		=	kɪdhər	"whither"

and so on.

T_{30} neg attachment:

$$X - neg - W - V\ (B)\begin{bmatrix} ta \\ ya \end{bmatrix} + hɛ \quad \rightarrow\rightarrow\rightarrow \quad X - W - V\ (B)\begin{bmatrix} ta \\ ya \end{bmatrix} + hɛ + neg$$

T_{31} neg incorporation:

$$X - \begin{bmatrix} ta \\ ya \end{bmatrix} + hɛ + neg \quad \rightarrow\rightarrow\rightarrow \quad X - \begin{bmatrix} ta \\ ya \end{bmatrix} + nəg$$

The above rules ensure the correct negative forms of sentences such as:

292. vəh kam pər jata hɛ — vəh kam pər nəhĩ jata
"He goes to work." "He does not go to work."

293. pɪtaji dəftər gəye hɛ̃ — pɪtaji dəftər nəhĩ gəye
"Father has gone to the office." "Father has not gone to the office."

Now, T_{32} assigns the constituent neg its characteristic place in the string:

T_{32} neg placement:

$$X - \begin{bmatrix} W - V - (B) \begin{bmatrix} ta \\ ya \end{bmatrix} - neg \\ neg - Z - V - Y \end{bmatrix} \quad \rightarrow\rightarrow\rightarrow$$

$$X - \begin{bmatrix} W - neg - V - (B) \begin{bmatrix} ta \\ ya \end{bmatrix} \\ Z - neg - V - Y \end{bmatrix}$$

The following rule deletes the ocnstituent AT from strings which select the constituent Imp:

T_{33} Imperative

$$Imp - sdP - W - V + e + ga \quad \rightarrow\rightarrow\rightarrow \quad sdP - W - V$$

The second person pronoun is deleted after the string has undergone the appropriate concord rule..

3.5.1 Nothing so far has been said about the case of N in Hindi. The cases were not introduced in the CS rules, as they are obligatory features of N depending upon the environment in which a particular N occurs.

There are two cases in Hindi - direct and oblique. All the nouns preceding a postposition occur in oblique case, the others in direct case. The following rule is formulated to assign the oblique case to Ns of the terminal strings:

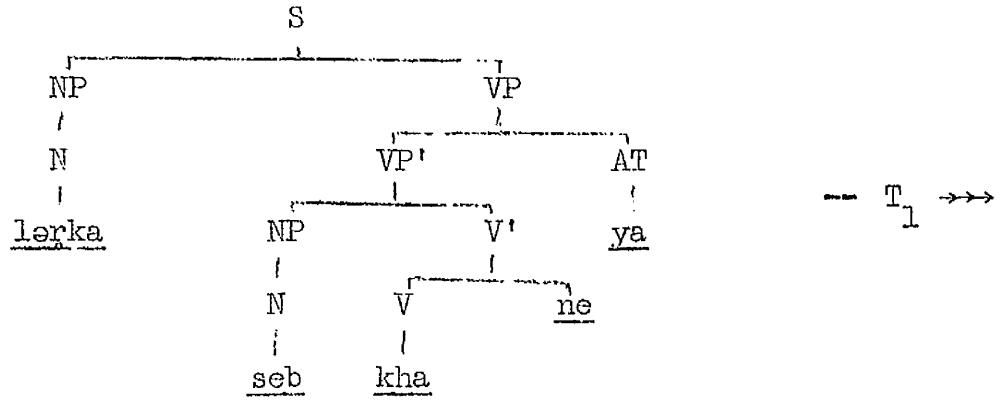
T_{34} Case assignment

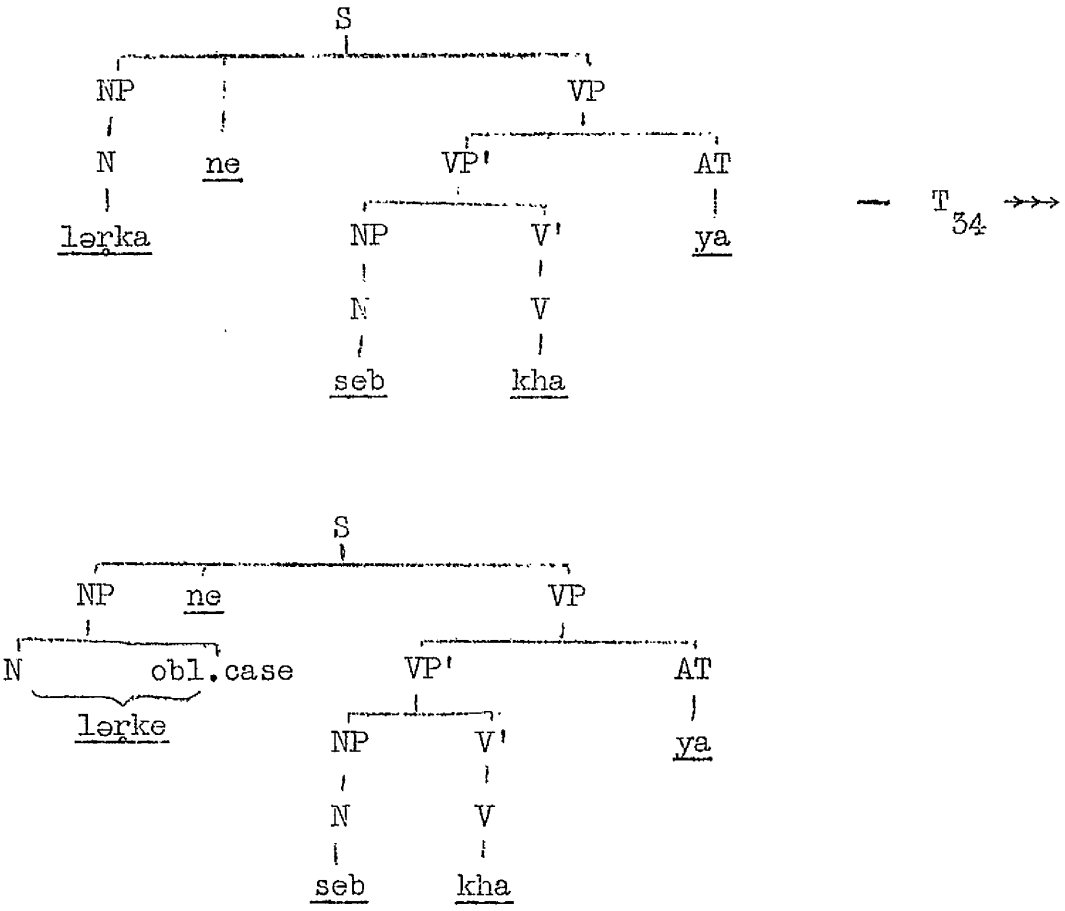
$$X - N + PP - Y \quad \rightarrow\rightarrow\rightarrow \quad X - N + \text{obl.case} + PP - Y$$

where: PP = { ne, se, ko, pər, ka, Gen, ke liye, ... }

A morphophonemic rule converts the Gen into ka, but this has not been formulated here.

The above rule results in the following:





That is,

lərke ne seb khaya "The boy ate an apple."

The patient noun of a transitive verb is followed by the postposition ko if it possesses the feature [+animate] or [+definite] or both. But, if it is preceded by a recipient noun, then the position is different:

294. mã ne nokər ko kɔch kəpre diyo

"Mother gave some clothes to the servant."

Also,

295. mã ne nəkər ko meri kəmiz di.
"Mother gave my shirt to the servant."

But:

296. mã ne bəcce ko ʊʈha lıya.
"Mother picked the child up."

and,

297. mã ne bəcca dai ko thəma dıya.
"Mother gave the child to the maid."

All these restrictions are taken care of by the following rules:

T_{35} Assignment of ko

$$X - \begin{bmatrix} N \\ ProN \end{bmatrix} - V - Y \quad \rightarrow\rightarrow\rightarrow \quad X - \begin{bmatrix} N \\ ProN \end{bmatrix} + ko - V - Y$$

Where: $\left.\begin{matrix} N \\ ProN \end{matrix}\right\}$ occurs in the env. (mdR) ---- (comp) V

$T_{35.1}$

$$X - N + ko - N_{[+animate+definite]} - V - Y \quad \rightarrow\rightarrow\rightarrow$$

$$X - N_{[+animate+definite]} - N + ko - V - Y$$

Where:

N + ko is dominated by mdR.

T_{36} Reflexive pronoun:

$$X - N_1 - W - N_2 - Y \quad \rightarrow\rightarrow\rightarrow \quad X - N_1 - W - \text{əpna} - Y$$

Where: a. $N_1 = N_2$

b. N_2 = N in the env. $\begin{cases} \text{--- ko + N (comp) V} \\ \text{(N + ko) --- (comp) V} \\ \text{(N + ko) --- (comp) V} \end{cases}$

c. $V = V_{[+NP,\ \pm ne]}$

The above rule prevents the generation of strings such as the following:

* mɛ̃ mɔjhko **alsi** səməjhta hũ

* ram ne ram ko vyəst rəkha

and generates strings such as the following:

298. mɛ̃ əpne ko **alsi** səməjhta hũ
"I consider myself **lazy**."

299. ram ne əpne ko vyəst rəkha
"Ram kept himself busy."

The following morphophonemic rule takes care of the **alternations** of the following type:

300. ram ne $\begin{Bmatrix} \text{mɔjhko} \\ \text{mɔjhe} \end{Bmatrix}$ ek kıtab di
" Ram gave me a book. "

301. ɔsne $\begin{Bmatrix} \text{tɔmko} \\ \text{tɔmhɛ̃} \end{Bmatrix}$ kyõ bheja
"Why did he send you?"

T_{37} Optional morphophonemic rule:

$$X - ProN + ko - Y \quad \rightarrow\rightarrow\rightarrow \quad X - ProN + e - Y$$

Following the above, a series of morphophonemic rules will be necessary to specify the forms of pronoun + obl. case + e. No attempt is made here to formulate the rules, only the forms are listed below:

ProN		ProN + obl. case	ProN + obl. case + PP	
mɛ̃	"I"	mɛ̃ if --- ne me- if --- ka mɔjh- otherwise	me- + ka mɔjh- + e	mera "my" mɔjhe
həm	"We"	həm	həm + ka həm + e	həmara "our" həmɛ̃
tu	"You"	tu if --- ne te- if --- ka tɔjh- otherwise	te- + ka tɔjh- + e	tera "your" tɔjhe
tɔm	"You"	tɔm	tɔm + ka tɔm + e	tɔmhara "your" tɔmhɛ̃
yəh	"He/She" "This"	ɪs	ɪs + e	ɪse
ye	"They" "These"	ɪn	ɪn + ne ɪn + e	ɪnhɔ̃ne ɪnhɛ̃
vəh	"He/She" "That"	ɔs	ɔs + e	ɔse
ve	"They" "Those"	ɔn	ɔn + ne ɔn + e	ɔnhɔ̃ne ɔnhɛ̃

3.5.2 The concord rules that specify the agreement between Noun and Adjective and Noun and Verb will have to be of a

tentative nature till the relevant sections of the grammar - e.g., the conjunction rules, among other things - are worked out. Even then the following will not become redundant though they will have to be reformulated to include the rules about the strings generated by the coordinative and alternative conjunctions - i.e., the "and" and "or" conjunction - rules.

T_{38} Concord - Nominative-Ergative, and Passive - transitive

$$X - N_1 - \begin{bmatrix} ne \\ se \end{bmatrix} - W - N_2 - \begin{bmatrix} V_{[+NP,\ +ne]}\ (Opr._{[+NP,\ +ne]})\ ya \\ V_{[\pm NP,\ \pm ne]}\ (Opr._{[+NP,\ \pm ne]})\ (M)\ Asp \end{bmatrix} Y$$

$$\rightarrow\rightarrow\rightarrow \quad X - N_1 - \begin{bmatrix} ne \\ se \end{bmatrix} - W - N_{2\ [\pm fem,\ \pm plu]} - \begin{bmatrix} V(Opr.)\ ya \\ V(Opr.)(M) \end{bmatrix} - Y_{[\pm fem, \pm plu]}$$

Where: $N_2 \neq ProN$

The rule is to be interpreted as follows:

$$\text{If} \begin{bmatrix} N_2[+fem,\ -plu] \\ N_2[-fem,\ +plu] \\ N_2[-fem,\ -plu] \\ N_2[+fem,\ +plu] \end{bmatrix}, \text{ then} \begin{bmatrix} V\ (Opr.)(M)AT_{[+fem,\ -plu]} \\ V\ (Opr.)(M)AT_{[-fem,\ +plu]} \\ V\ (Opr.)(M)AT_{[-fem,\ -plu]} \\ V\ (Opr.)(M)AT_{[+fem,\ +plu]} \end{bmatrix}$$

The same applies to all the following concord rules.

$T_{38.1}$ Concord - Definite/Animate object, Passive - intransitive

$$N_1 - \begin{bmatrix} ne \\ se \end{bmatrix} - W - \begin{bmatrix} N_2 + ko \\ \emptyset \end{bmatrix} - V - (Opr.)\ (M)\ AT \quad \rightarrow\rightarrow\rightarrow$$

$$N_1 - \begin{bmatrix} ne \\ se \end{bmatrix} - W - \begin{bmatrix} N_2 + ko \\ \emptyset \end{bmatrix} - V\ (Opr.)\ (M)\ AT_{[-fem,\ -plu]}$$

Where N_2 = N in the env. --- (comp) V

$T_{38.2}$ Concord - Subject and Verb

$$X - N - W - V\ ((SE)Opr.)\ (M)\ AT \quad \rightarrow\rightarrow\rightarrow$$

$$X - N\begin{bmatrix} [\pm fem,\ \pm plu,\ \pm \begin{bmatrix} FtP \\ SdP \\ ThP \end{bmatrix}] \\ [\pm fem,\ +Honorific] \end{bmatrix} - W - V - \ldots\ AT\begin{bmatrix} [\pm fem,\ \pm plu,\ \pm \begin{bmatrix} FtP \\ SdP \\ ThP \end{bmatrix}] \\ [\pm fem,\ +plu] \end{bmatrix}$$

$T_{38.3}$ Concord - N and Adj

$$X - N - Adj_{[\pm attr]} - Y \quad \rightarrow\rightarrow\rightarrow$$

$$X - N\begin{bmatrix} [\pm fem,\ \pm plu] \\ [\pm fem,\ +Hon] \end{bmatrix} - Adj\begin{bmatrix} [\pm fem,\ \pm plu] \\ [\pm fem,\ +plu] \end{bmatrix} - Y$$

$T_{38.4}$ Concord - N and Adv

$$X - N - V + ta\ (+h\omega a)_{[+adv]} - Y \quad \rightarrow\rightarrow\rightarrow$$

$$X - N \begin{bmatrix} [\pm fem,\ \pm plu] \\ [\pm fem,\ +Hon] \end{bmatrix} - V + ta\ (+h\omega a) \begin{bmatrix} [\pm fem,\ \pm plu] \\ [\pm fem,\ +plu] \end{bmatrix} - Y$$

The case assignment rule is reformulated to assign case to the Adj also if the Adj + N is followed by PP:

T_{34}

$$X - Adj - N + PP - Y \quad \rightarrow\rightarrow\rightarrow$$

$$X - Adj + obl.\ case - N + obl.\ case + PP - Y$$

Now the second person pronoun is deleted from the string generated by T_{33} to generate the subject-less imperative sentences:

T_{39} Deletion of SdP:

$$SdP - W - V_{[+SdP]} \quad \rightarrow\rightarrow\rightarrow \quad W - V_{[+SdP]}$$

$T_{39.1}$ Morphophonemic rule:

$$V_{[+SdP]} \quad \rightarrow\rightarrow\rightarrow \quad V + 0$$

The following word-boundary transformation assigns correct boundaries to the items. As the concordial features are not relevant for this rule they have not been marked in the following formulation:

T_{40} Word-boundary:

$$X - \left[\begin{array}{l} V \left[\begin{array}{l}((SE)\text{Operator})\ (M) \\ 0\end{array}\right] \left\{\begin{array}{l}\text{Asp} + \text{Taux} \\ e + ga\end{array}\right] \\ (\text{Adj} + \text{obl. case})\ N + \text{obl. case} + PP \\ V + \left[\begin{array}{l}ta \\ ya \\ te \\ ye\end{array}\right] + \left\{\begin{array}{l}hœa \\ hœe\end{array}\right] \end{array}\right] - Y \rightarrow\rightarrow\rightarrow$$

$$\| X \| \left[\begin{array}{l} V \left[\begin{array}{l}((SE) \| \text{Operator})\ (\|M) \\ 0\end{array}\right] \left\{\begin{array}{l}\text{Asp} \| \text{Taux} \\ e + ga\end{array}\right] \\ (\text{Adj} + \text{obl. case} \|)\ N + \text{obl. case} \| PP \\ V + \left[\begin{array}{l}ta \\ ya \\ te \\ ye\end{array}\right] \| \left\{\begin{array}{l}hœa \\ hœe\end{array}\right] \| \end{array}\right] \| Y \|$$

302. ləṛka - dɔṛ - ta - hœa - bazar - ja - rəha - tha

‖ləṛka ‖dɔṛta ‖hœa ‖bazar ‖ja ‖rəha ‖tha ‖

"The boy was going to the market running"

303. mɛ̃ - əbhi - bazar + se - nəmək - la - ye - de - ta - hũ

‖mɛ̃ ‖əbhi ‖bazar ‖se ‖nəmək ‖laye ‖deta ‖hũ ‖

"I shall go and get some salt from the market presently"

304. vəh - roz - sœbəh - ṭəhəlna + obl. case + ke + lıye - ja - ya - kərta - hɛ

‖vəh ‖roz ‖sœbəh ‖ṭəhəlne ‖ke ‖lıye ‖jaya ‖kərta ‖hɛ ‖

"He goes for a walk every morning"

3.6 The rules as formulated in the preceding pages do not generate sequences of CVs such as de dıya kərta hɛ (V + Opr. + ya + Opr.). No mention has been made of verbal compounds such as khana - pina, puchna - tachna, (to eat and drink, enquire), etc. Transitive verbs which take a "that" clause as their patient noun have not been separated from the other transitive verbs. All these can be taken care of quite simply. To generate the CV sequence the CS rules can be rewritten to expand V into V ((SE)Operator) ($\left\{\begin{matrix}+ya & +kər \\ \ldots\ldots & \end{matrix}\right\}$) and then statements can be made to specify the selection restrictions between Operator and ya + kər. Verbal compounds will not make any difference to the syntactic rules already formulated, although compounding might affect the syntactic features of particular verbal items. To classify the transitive verbs to account for those that take a "that" clause the rule expanding NP can be rewritten to provide for the choice of kı + S in the env. (mdR) --- V. The appropriate verbs will then take a feature [+kı +S]. Note that there are no restrictions on the S following the kı, and hence there is no need for any rules to operate upon strings with kı + S constituents. The lexicon following this chapter marks the appropriate verbs with the feature [+kı +S].

Many of the rules are obviously tentative in nature, and will be modified as more areas of Hindi grammar are worked out

in detail. The element J (cf. p. 19, fn.) has not been developed as the relative - correlative elements have been introduced at appropriate places (cf. T_{10}, p. 77; CS rules 2.8.1, 2, pp. 84 - 5) without any attempt to generalize about the occurrence of J in other places at this stage. Similarly, the reflexive pronominal element has been introduced in only one rule: no attempt has been made to generalize its occurrence elsewhere.

APPENDIX

LEXICON

The following is a list of verbs with syntactic, selectional and semantic features assigned to the items. The syntactic and selectional features are symbolized as [+x], the semantic markers are in ( ), the distinguishers in / /, and the English translations are in quotation marks, e.g.:

ərna [+V]; [-NP, +Passive, +NP +se, +Opr.]; [±Human, +Opr. ja, bɛth, rəh]; (stative) (ātmane); /to stand stubbornly still, as applied to animals; to be stubbornly insistent, as applied to humans/; "to refuse to budge".

where [+V] specifies that the item belongs to the syntactic category of verb; the second entry specifies the syntactic features; the third assigns selectional features in terms of the subject noun, and the Operator - the operators themselves have been entered to make the entry more explicit -; the entry in / / points out the different 'senses' of the item; and the final entry gives the English translation. [+V] has been taken for granted in the following entries. The selectional features of the second and subsequent nouns if the item is a transitive verb, follow the selectional features of the first noun. Only

those features that have already been discussed in the preceding chapters have been marked. The marker (instancy) implies co-occurrence of the item with the Operator dal.

ãkna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (ātmane) (parasmai) (instancy); /to draw or paint a picture/; "to draw or paint".

ana — [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ja, nɪkəl, pəhɔ̃c, dhəmək]; (stative) (ātmane); "to come".

[-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); /to arrive, as applied to post, parcels, etc./; "to arrive".

[+Nom, +Opr.]; [+Human/Animate]; [+Abstract, expression of pleasure, pain, etc., +Opr. ja]; (stative); /to be felt, as applied to anger, laughter, etc./; "to be felt".

[+Opr., -NP]; /specifies direction of preceding verb towards the speaker-hearer/.

ɔkhərna — [-NP, +Opr.]; [-Animate, -Abstract, +Opr. a, ja]; (stative); /to be uprooted, as applied to plants, poles, etc./; "to be uprooted".

[-NP, +Opr.]; [±Animate, +Opr. ja]; (event); /to be torn up by the roots, as applied to an enemy, rival, etc./; "to be torn up by the roots".

ɑkharṇa [+NP, +Passive, +NP +se, +Opr.]; [±Animate, -Abstract]; [-Abstract]; (parasmai) (ātmane) (instancy); /to uproot plants, poles, etc./; "to uproot".

[+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Abstract]; (parasmai); /to tear up by the roots, as applied to an enemy, rival, etc./; "to tear up by the roots".

ɑkhərvana [+mdH, +Human]; Otherwise as ɑkharṇa; "to cause to be uprooted".

ɑgna [-NP, +Passive, +NP +se, +Opr.]; [-Animate, -Abstract, +Luminary, +Opr. a, ja]; (stative) (ātmane); /to rise, as applied to sun, moon and stars/; "to rise".

[-NP, +Opr.]; [-Animate, -Abstract, +Opr. a, ja]; (stative); /to grow, as applied to grass, plants, etc./; "to grow".

ɑchəlna [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. pər]; (ātmane) (event); "to jump".

ɑṭhna [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. a, ja, bɛṭh]; (event); "to raise oneself up".

[-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); /to be picked up/; "to be raised up".

[+Opr., -NP]; /suddenness, impudence, intensity/; "Intensive".

ɔṭhana — [+NP, +Passive, +NP +se, +Opr.]; [±Human]; [±Animate]; (stative) (ātmane) (parasmai); /to raise something or someone/; "to raise, lift up".

ɔṭhvana — [+mdl, +Human]; Otherwise as ɔṭhana; "to cause to be raised up".

ɔṛna — [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Avian, +Opr. a, ja, cəl]; (ātmane) (event); /motion on wings/; "to fly".

[-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Avian, +Opr. ja]; (event); /to be in the air, as applied to aeroplanes, kites, balloons, etc./; "to be airborne".

ɔṛana — [+NP, +Passive, +NP+se, +Opr.]; [+Human]; [±Animate, -Abstract, +Avian]; (ātmane) (parasmai); "to fly".

[+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (parasmai) (instancy); /to squander, as applied to riches/; "to squander".

ɔṭərna — [-NP, +Passive, +NP +se, +Opr.]; [+Human, +Opr. a, ja, pəṛ]; (stative); "to climb down, be taken down".

[-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); /to fall, as applied to the level of water, someone's face, etc./; "to fall".

ɷtarna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, -Abstract, +Opr. bɛṯh]; (ātmane) (parasmai) (instancy); "to take someone, something down".

ɷtərvana [+mdM, +Human]; Otherwise as ɷtarna; "to cause to be taken down".

ɷbəlna [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be boiled".

ɷbalna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, -Abstract]; (ātmane) (parasmai) (instancy); /to boil water, milk, grain, etc./; "to boil".

ɷmərṇa [-NP, +Opr.]; [-Animate, ±Abstract, +Opr. a, pər, cəl]; (stative); /to overflow, as applied to rivers, tears, feelings, etc./; "to overflow".

ɷṛhna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (stative) (ātmane); "to cover oneself with".

ɷṛhana/ɷrhana [+mdR, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Human]; [-Animate, -Abstract]; (parasmai) (instancy); "to cover".

ɷṛhvana [+mdM, +Human]; Otherwise as ɷṛhana; "to cause to be covered with".

kəṭna [-NP, +NP +se, +Opr.]; [±Human, -Abstract, +Opr. ja]; "to be cut".

kaṭna [+NP, +Passive, +NP +se, +Opr.]; [±Animate, -Abstract]; [±Animate, -Abstract]; (ātmane) (parasmai) (instancy); "to cut".

kəṭvana [+mdM, +Human]; Otherwise as kaṭna; "to cause to be cut".

kəmana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, ±Abstract]; (ātmane); /to earn money, fame, etc,/; "to earn".

kərna [+NP, +Passive, +NP +se, +Opr.]; [±Animate, ±Abstract]; [+Abstract, +Opr. bɛṭh]; (ātmane) (parasmai) (instancy); "to do".

[+Opr., +NP +ya]; Otherwise as preceding; /habitual, regular action/.

kəhna [+NP, +kɪ +S, +Passive, +NP +se, +concomitive, +Opr.]; [+Human]; [+Abstract]; (ātmane) (parasmai) (instancy); "to say, tell".

[+NP, +concomitive, +ye, +Opr.]; (parasmai); "to warn, give an ultimatum".

kãpna [-NP, +Source, +Opr.]; [+Human, +Opr. ja, ɔṭh]; (event); "to tremble".

[-NP, +Source, +Opr.]; [-Animate, -Abstract, +Opr. ɔṭh]; (event); /to quiver, as applied to leaves, etc./; "to quiver".

kudna [-NP, +Passive, +Opr.]; [+Animate, +Opr. a, ja]; (event) (ātmane); "to jump up and down".

khana [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, -Abstract, +Solid, +Opr. ja]; (event) (ātmane) (instancy); "to eat".

khɪlana [+mdR, +NP, +Passive, +NP +se, +Opr.]; [+Animate]; [+Animate]; [±Animate, -Abstract, +Solid]; (parasmai); "to feed".

[+NP, +Passive, +NP +se, +Opr.]; [+Animate, -Abstract]; [-Animate, -Abstract]; (parasmai); "to make flowers blossom".

khɪlna [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja, oth]; (stative); /to bloom like a flower, as applied to flowers, faces, etc./; "to blossom".

khelna [+NP, -ne, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, ±Abstract]; (ātmane); /to play a game/; "to play".

khĩcna [-NP, +Opr.]; [-Animate, -Abstract, +Opr. a, ja]; (stative); /to be pulled, as applied to rope, thread, etc./; "to be pulled".

[-NP, +Separative, +Opr.]; [+Human, +Opr. ja]; (stative); /to be cross with someone/; "to be cross or annoyed".

khĩcna — [+NP, +Passive, +NP +se, +Opr.]; [±Human]; [±Human, ±Abstract]; (ātmane); "to pull towards oneself".

[+NP, +Opr.]; [+Abstract]; [+Animate, +Abstract]; (ātmane); "to attract".

kholna — [-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "To be opened".

kholna — [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, - Abstract]; (ātmane) (parasmai) (instancy); /to open a door, book, ones eyes, etc./; "to open".

kholvana — [+mdM, +Human]; Otherwise as kholna; /to cause someone to get something opened/; "to cause to be opened".

khojna — [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, ±Abstract, +Opr. nɪkal]; (ātmane) (parasmai); /to look for someone, something/; "to search".

khojvana — [+mdM, +NP, +Passive, +NP +se, +Opr.]; [+Animate]; [+Animate]; [±Animate, ±Abstract, +Opr. mə̃ga]; (ātmane) (parasmai); /to get someone, something searched out/; "to cause to be searched".

gɪnna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, ±Abstract]; (ātmane) (parasmai) (instancy); /to count people, things, days, numbers, etc./; "to count".

gɪnvana [+mdM, +Human]; Otherwise as gɪnna; /to cause someone to count/; "to cause to be counted".

gɪrna [-NP, +Separative, +Opr.]; [±Animate, -Abstract, +Opr. ja, pər]; (stative); /to be dropped, fall unintentionally/; "to fall, be dropped".

gɪrana [+NP, +Passive, +NP +se, +Opr.]; [±Animate, -Abstract]; [±Animate, -Abstract]; (stative) (ātmane) (parasmai) (instancy); /to fell, drop someone, something/; "to fell, drop".

gɪrvana [+mdM, +Human]; Otherwise as gɪrana; (ātmane) (parasmai) (instancy); /to make someone drop or fell something/; "to cause to drop".

ghəṭna [-NP, +Opr.]; [-Animate, -Abstract, +Luminary, +Opr. ja, cəl]; (stative); /to wane, be reduced in size/; "to be reduced".

ghəṭana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, ±Abstract]; (ātmane) (parasmai) (instancy); /to reduce, subtract/; "to reduce".

ghɪsna — [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); /to be rubbed, scraped/; "to be worn".

[+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, -Abstract]; (ātmane) (parasmai); "to rub, scrape".

ghɔlna — [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); /to be mixed, dissolve/; "to dissolve".

[-NP, +Opr.]; [+Human, +ta +{ja / rəh}]; (event); /to pine, waste away/; "to waste away".

ghɔsna — [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ja, pəṛ]; (ātmane) (stative); /to enter, slip in/; "to enter".

[-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be pushed in".

ghɔsana — [+NP, +Passive, +NP +se, +pl, +Opr.]; [+Animate]; [±Animate, -Abstract]; (stative) (ātmane) (parasmai) (instancy); "to push someone or something into something".

gholna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (ātmane) (parasmai) (instancy); /to dissolve, stir, mix/; "to dissolve".

cəṛhna — [-NP, +pl, +Passive, +Opr.]; [±Animate, -Abstract, +Opr. a, ja, bɛṭh]; (stative) (ātmane); "to climb up".

[+Nom, +Opr.]; [+Human]; [+Abstract, +Opr. ja]; (stative); /to be drunk, angry, etc./; "to soar up".

cərhana — [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Human, -Abstract]; [±Animate, ±Abstract]; (stative) (ātmane) (parasmai) (instancy); /to lift up someone, something, make someone climb/; "to raise to a higher position".

cəbana — [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, -Abstract]; (event) (ātmane) (instancy); /to munch, chew/; "to chew".

cəlna — [-NP, +Passive, +NP +se, +manner, +Opr.]; [±Animate, +Opr. pər, ya + a, ja]; (event) (parasmai); /to move, walk/; "to walk".

cəlana — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract, +Vehicular, +Propulsion]; (parasmai); /to drive a vehicle, shoot an arrow, gun, etc., to throw a knife, spear, etc./; "to drive".

cahna — [+NP, +ne, +Opr.]; [+Human]; [±Animate, ±Abstract, ±md]; "to want".

cahıye — [+Nom, +md]; [±Human]; [-Animate, ±Abstract]; "to want".

cirna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract, +Timber, +Anatomy]; (ātmane) (parasmai) (instancy); /to saw, dissect/; "to cut off".

cɷgna — [+NP, +Passive, +NP +se, +Opr.]; [+Animate, +Avian]; [-Animate, -Abstract]; (ātmane) /to eat, as applied to birds/; "to peck".

cɷgana — [+mdR, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate, +Avian]; [-Animate, -Abstract]; (parasmai); /to feed birds/; "to feed".

cɷgvana — [+mdM, +mdR, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [+Animate, +Avian]; [-Animate, -Abstract]; (parasmai); /to make someone feed birds/; "to cause to feed".

caṭna — [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, -Abstract, +Semisolid]; (ātmane) /to lick semisolid edibles/; "to lick".

[+NP, +Passive, +NP +se, +Opr.]; [+Animate, -Human]; [±Animate, -Abstract]; (ātmane); "to lick".

cəṭana — [+mdR, +NP, +NP +se, +Opr.]; [+Human]; [+Animate]; (parasmai) (instancy); "to feed semisolid things to someone".

cəṭvana — [+mdM, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [+Animate]; (parasmai); "to make someone feed someone semisolid things".

cusna — [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, -Abstract]; (ātmane) (instancy); /to suck sugar cane, bone, blood, etc./; "to suck".

cuna [-NP, +Separative]; [-Animate, -Abstract]; /to leak, as applied to the roof, etc., to drop, as applied to water, etc./; "to leak".

cɔ̃kna [-NP, +Opr.]; [+Human, +Opr. ɷth, pər]; "to be startled".

chəpna [-NP, +Opr.]; [-Animate, ±Abstract, +Opr. ja]; (stative); /to be printed, as applied to news, newspaper, cloth, etc./; "to be printed".

chapna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, ±Abstract]; (ātmane) (parasmai) (instancy); /to print news, newspapers, books, etc./; "to print".

chəpvana [+mdM, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [-Animate, ±Abstract]; (ātmane) (parasmai) (instancy); /to make someone print something/; "to cause to print".

chələkna [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja, ɷth, pər]; (stative); /to spill |intransitive|, as applied to water, milk, tears, etc./; "to spill".

chırna [-NP, +Opr.]; [+Abstract, +Contention, +Opr. ja]; (stative); /to begin, as applied to fighting, quarrelling, arguing, etc./; "to commence, set in".

cheṛna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Abstract, +Contention, +Music]; (parasmai); /to initiate, start, a quarrel, debate, singing, etc./; "to start".

chıpna [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ja]; (stative) (ātmane) ; "to hide oneself, take cover".

chıpana [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, ±Abstract]; (stative) (ātmane) (parasmai); "to hide someone, something".

chinna [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, ±Abstract]; (event) (ātmane); "to snatch away".

chuṭna [-NP, +NP +se, +Opr.]; [±Animate, +Opr. ja]; (stative); "to be left, given up".

[-NP, +Opr.]; [-Animate, -Abstract, +Vehicular, +Opr. ja]; "to leave".

choṛna [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, +Opr. a, ja]; (parasmai); "to leave behind, give up".

jəgna [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Abstract, +Opr. ja]; (stative) (ātmane); "to wake up".

jəgana [+NP, +Passive, +NP +se, +Opr.]; [+Animate, +Sound]; [+Animate, +Abstract]; (parasmai); "to wake up".

jəlna [-NP, +NP +se, +Opr.]; [±Animate, ±Abstract, +Opr. ja]; (stative); "to burn".

jəlana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, ±Abstract, +Fire]; (ātmane) (parasmai); "to burn".

jəlvana [+mdM, +Human]; Otherwise as jəlana; "to make someone burn something".

jana [-NP, +pl, +Passive, +NP +se, +Opr.]; [±Animate, ±Abstract, +Opr. pəhɔ̃c, dhəmək]; (stative); "to go".

[+Opr., -NP, +M]; "Intensive, Direction".[1]

janna [+NP, +kı +S, +md, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate, +Abstract, +Opr. ja]; (ātmane); "to know".

jina [-NP, +tm, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ja, ɔth]; "to be alive"

jɔrna [-NP, +Concomitive, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be joined".

jorna [+NP, +Passive, +Concomitive, +NP+se, +Opr.]; [+Human]; [-Animate, -Abstract]; (stative) (ātmane) (parasmai); "to join".

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[1]Also: [+Opr. ta + ja, ye + ja]; "to keep doing something, go on doing something".

jhɔkna [-NP, +Source, +Opr.]; [±Animate, -Abstract, +Opr. a, ja, ya + pər]; (stative); "to bend".

jhɔkana [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, -Abstract]; (stative) (ātmane) (parasmai); "to bend".

jhulna [-NP, +Passive, +NP +se, +Opr.]; [+Human, +Opr. pəṛ]; (event); "to swing".

[-NP]; [±Animate, -Abstract]; (event); "to dangle".

jhɔlana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to swing".

ṭəhəlna [-NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; (event) (ātmane); /to walk for pleasure, take a walk/; "to walk".

ṭuṭna [-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Breakable, +Opr. ja]; (stative); "to break".

ṭhəhərna [-NP, +pl, +Opr.]; [+Human, +Opr. ja]; (stative); "to stay".

ṭhəhrana [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (ātmane) (parasmai); /to make someone stay somewhere, put up a guest/; "to have someone staying somewhere".

ḍərna [-NP, +Source, +Opr.]; [+Animate, +Opr. ja]; "to fear".

ḍərana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate]; (parasmai); "to frighten".

ḍāṭna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate]; (parasmai); "to scold, rebuke".

ḍalna [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, ±Abstract]; (stative) (ātmane) (parasmai); /to put, add to/; "to add to".[2]

ḍəlvana [+mdM, +NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [±Animate, ±Abstract]; (stative) (ātmane) (parasmai); "to cause to add to".

ḍubna [-NP, +pl, +Opr.]; [±Animate, -Abstract, +Opr. ja]; (stative); "to be drowned".

[-NP, +pl, +Opr.]; [-Animate, -Abstract, +Luminary]; (event); /to set, as applied to sun, moon, stars, etc./; "to set"

ḍobana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, ±Abstract]; (parasmai); "to drown".

[+NP, +Opr.]; [+Abstract]; [+Human]; (parasmai); /to ruin someone or something/; "to ruin".

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[2] Also: [+Opr.]; "Intensive". [+ye +ḍal]; "Reckless action".

ḍhũṛhna [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, ±Abstract, +Opr. nɪkal]; (ātmane) (parasmai); "to look for, search."

ḍhõṛhvana [+mdM, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [± Animate, ± Abstract, +Opr. mə̃ga]; (ātmane) (parasmai); "to cause to search."

ḍhona [+NP, +Passive, +NP +se, +Opr.]; [±Animate]; [±Animate, ±Abstract]; (ātmane) (parasmai); "to carry."

ḍholana [+mdM, +NP, +Passive, +NP +se, +Opr.]; Otherwise as ḍhona; (parasmai); "to cause to carry."

thəkna [-NP, +Source, +Opr.]; [+Animate, +Opr. ja]; (stative); "to be tired".

thəkana [+NP, +Source, +Passive, +NP +se, +Opr.]; [+Animate]; [+Animate]; (parasmai);, "to tire".

dekhna [+NP, +kɪ +S, +comp, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, -Abstract, +Visible]; (ātmane) (parasmai);(instancy); /to see, examine/; "to see".

[+Opr.]; /tentative action or process/.

dɪkhlana [+mdR, +NP, +Passive, +NP +se, +Opr.]; [+Animate]; [+Animate]; [±Animate, -Abstract, +Visible]; (ātmane) (parasmai); "to shew".

dɪkhəlvana [+mdI, +Human]; Otherwise as dɪkhlana; (parasmai); "to cause to shew".

dena [+mdR, +NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate]; [±Animate, ±Abstract]; (parasmai) (instancy); "to give".

[+Opr.]; (parasmai); /the result of the action or process being directed towards others/.

dɪlana [+mdI, +Human]; Otherwise as dena; "to cause to give".

dɔṛna [-NP, +Passive, +NP +se, +Opr.]; [+Animate]; (event) (ātmane); "to run".

[-NP]; [-Animate, -Abstract, +Vehicular]; (event) (ātmane); "to run".

dɔṛana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, +Vehicular]; (event) (parasmai); "to drive, make someone run".

dhɔlna [-NP, +Source, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be washed".

dhona [+NP, +comp, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (ātmane) (parasmai) (instancy); "to wash something".

dhɔlvana [+mdI, +Human]; Otherwise as dhona; "to cause to wash".

nəhana [-NP, +Passive, +NP +se, +Opr.]; [+Animate]; (stative) (ātmane); "to take a bath".

nəhlana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate]; (parasmai) (instancy); /to make someone take a bath/; "to wash".

nəhəlvana [+mdf, +Human]; Otherwise as nəhlana; "to cause to wash".

nɪkəlna [-NP, +pl, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. a, ja, pəṛ]; (stative); "to come out".

[-NP, +pl, +Opr.]; [-Animate, ±Abstract, +Opr. a, ja, pəṛ]; (stative); "to issue, emerge".

nɪkalna [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, ±Abstract]; (stative) (ātmane) (parasmai); /to cause to come out, take out/; "to take out".

nɪkəlvana [+mdf, +Human]; Otherwise as nɪkalna; "to cause to take out".

nocna [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; (ātmane); "to scratch".

pəkəṛna [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [±Animate, -Abstract]; (stative) (ātmane); "to catch".

pəṛna [-NP, +Opr.]; [±Animate, -Abstract, +Opr. ja]; (stative) (event); /to lie down, rain/; "to lie down".

[+Nom, +md, +Opr.]; [+Abstract, +Opr. ja]; "to have to".

[+Opr.]; "Downward motion, Suddenness".

pəṛhna [+NP, +kı +S, +Passive, +NP +se, +Opr.]; [+Human]; [+Legible]; (ātmane) (parasmai); "to read".

pəṛhana [+mdR, +NP, +kı +S, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [+Legible]; (parasmai); "to teach".

pəṛhvana [+mdM, +Human]; Otherwise as pəṛhana; (ātmane) (parasmai); "to cause to read".

pəhənna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract, +Dress]; (stative) (ātmane); "to wear".

pəhnana [+mdR, +Human]; Otherwise as pəhənna; (parasmai); "to dress".

pəhənvana [+mdM, +Human]; Otherwise as pəhnana; "to cause to dress".

pəhõcna [-NP, +pl, +Opr.]; [±Animate, ±Abstract, +Opr. ja]; (stative); "to reach some place".

pəhɔ̃cana [+NP, +pl, +Passive, +NP +se, +Opr.]; [±Animate, ±Abstract]; (parasmai); "to send, cause to reach".

pəhɔ̃cvana [+mdM, +Human]; Otherwise as pəhɔ̃cana; "to cause to cause to reach".

pɪʈna [-NP,+Passive, +NP +se, +Opr.]; [±Animate, -Abstract]; (stative); "to be hit, beaten".

piʈna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, -Abstract]; (ātmane) (parasmai) (instancy); "to hit, beat".

pɪʈvana [+mdM, +Human]; Otherwise as piʈna; "to cause to be hit".

pina [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, -Abstract]; (ātmane); "to drink".

Also (stative) if [-Animate, -Abstract, +Alcohol].

pɪlana [+mdR, +Animate]; Otherwise as pina; (parasmai); "to make someone, something drink something".

pɪlvana [+mdM, +Human]; Otherwise as pɪlana; "to make someone cause someone, something to drink something".

puchna [+NP, +kɪ +S, +Concomitive, +Passive, +NP +se, +Opr.]; [+Human]; [+Abstract, +Opr. bɛʈh]; (ātmane) (parasmai); /to ask a question, etc./; "to ask".

phə̃sna [-NP, +pl, +Opr.]; [+Animate, +Opr. ja]; (stative); "to be caught".

phã̄sna [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Animate]; [+Animate]; (ātmane); "to catch, net".

phəṭna [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be torn".

phaṛna [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, -Abstract]; (parasmai) (instancy); "to tear up".

phə̃kna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, -Abstract]; (parasmai) (instancy); "to throw away".

phɛlna [-NP, +pl, +Opr.]; [-Animate, ±Abstract, +Collective, +Opr. ja]; (stative); "to spread, be scattered".

phɛlana [+NP, +Passive, +NP +se, +Opr.]; [+Animate]; [-Animate, ±Abstract, +Collective]; (ātmane) (parasmai) (instancy); "to spread, scatter".

bə̃ṭna [-NP, +NP +se, +Opr.]; [-Animate, ±Abstract, +Divisible, +Opr. ja]; (stative); "to be divided".

bã̄ṭna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, ±Abstract, +Divisible]; (ātmane) (parasmai) (instancy); "to divide".

bə̃ʈvana [+mdR, +Human]; Otherwise as bə̃ʈna; (parasmai); "to cause to divide".

bəkna [+NP, +kɪ +S, -ne, +Opr.]; [+Human]; [+Abstract]; (parasmai); "to babble".

bəjna [-NP, +Opr.]; [+Temporal, +Opr. ja]; /to strike, as applied to the hour/; "to strike".

[-NP]; [-Animate, -Abstract, +Sound]; "to be played".

bəjana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract, +Sound]; (ātmane) (parasmai); "to play, strike".

bənna [-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be made".

[+Pred, +Opr.]; [+Human, +Opr. ja, bɛʈh]; (stative); "to be made".

bənana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (ātmane) (parasmai) (instancy); "to make".

[+NP, +comp, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to make".

bəhna [-NP, +Opr.]; [-Animate, -Abstract, +Opr. ja, cəl]; (event); "to flow, float".

bəhana [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (parasmai); "to float".

bitna [-NP, +Opr.]; [+Temporal, +Opr. ja]; (stative); "to be spent".

bɪtana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Temporal]; (ātmane) (parasmai); "to spend time".

bɛṭhna [-NP, +pl, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ja]; (stative); "to sit".

[+Opr.]; "Rash action".

bɛṭhana [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (ātmane) (parasmai); "to seat".

bɪṭhvana [+mdM, +Human]; Otherwise as bɛṭhana; "to cause to seat".

bɷlana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate, +Abstract]; (ātmane); "to call".

bolna [+NP, +kɪ +S, -ne, +Passive, +NP +se, +Opr.]; [+Animate]; [+Abstract, +Speech, +Opr. ɷṭh, bɛṭh]; (parasmai); "to speak, tell".

bhagna [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. a, ja]; (stative); "to run away".

bhəgana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate, +Abstract]; (parasmai); "to cause to run away".

bhũkna [-NP]; [+Animate, -Human]; "to bark".

bhulna [+NP, +Opr.]; [+Human]; [±Animate, ±Abstract, +Opr. ja]; "to forget".

[-NP, +NP +se, +Opr.]; [±Animate, -Abstract, +Opr. ja]; (stative); "to be forgotten".

bhogna [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Abstract, +Experience]; (ātmane); "to feel, experience".

mərna [-NP, +Opr.]; [+Animate, +Opr. ja]; (stative); "to die".

marna [+mdR, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate]; [+Abstract]; (parasmai); "to beat".

[+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, - Abstract]; (ātmane); "to embezzle, pilfer".

[+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Animate]; (instancy); "to kill".

mərvana [+mdII, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [+Animate]; (parasmai) (instancy); "to cause to kill".

manna [+NP, +kɪ +S, +Passive, +NP +se, +Opr.]; [+Human]; [+Abstract]; (ātmane); "to accept".

mɪlna [+Nom, +Opr.]; [-Animate, ±Abstract, +Opr. ja]; (stative); "to accrue".

[-NP, +Concomitive, +Passive, +NP +se, +Opr.]; [+Animate, +Human, +Opr. ja]; (ātmane); "to meet".

rəkhna [+NP, +pl, +tm, +Passive, +NP +se, +Opr.]; [±Human]; [±Animate, -Abstract]; (ātmane) (parasmai) (instancy); "to keep, place".

rəhna [-NP, +pl, +tm, +Passive, +NP +se, +Opr.]; [+Human, +Opr. ja]; (ātmane); "to stay, live".

[-NP, +tm, +Opr.]; [+Temporal, +Opr. ja]; "to be left".

[+Opr., +ta +rəh]; "to keep doing something".

rona [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ɔ̱th, pər]; (ātmane) (parasmai); "to cry, weep".

rɔlana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to make someone cry".

rɔlvana [mdM, +Human]; Otherwise as rɔlana; "to cause to make someone cry".

ləgna [+Nom, +Opr.]; [+Animate]; [-Animate, -Abstract, +Propulsion, +Opr. ja]; (stative); "to hit".

[+Nom, +Opr.]; [+Animate]; [+Abstract, +Opr. ja]; (stative); "to be felt".

[+Nom, +md, +comp, +Opr.]; [+Human]; [±Animate, -Abstract, +Opr. ja]; "to seem, be felt".

[+Opr., +ne +ləg]; "to begin to".

ləṛna [-NP, +Concomitive, +Opr.]; [+Animate, +Opr. ja, pəṛ, bɛṭh]; (ātmane); "to fight, quarrel".

leṭna [-NP, +pl, +tm, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. rəh, ja]; (stative); "to lie down".

lıṭana [+NP, +pl, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (ātmane) (parasmai); "to lay someone down".

lıkhna [+mdR, +NP, +kı +S, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [+Abstract, +Legible]; (ātmane) (parasmai) (instancy); "to write".

[+NP, +Opr.]; [+Human]; [+Abstract, +Legible, +Opr. marna]; "to write rashly".

lıkhana [+mdṚ, +NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; [+Legible]; (parasmai); "to dictate".

lıkhvana [+mdM, +Human]; Otherwise as lıkhana; "to cause to write".

lana [+NP, -ne, +Passive, +NP +se, +Opr.]; [±Animate, -Abstract]; [±Animate, ±Abstract]; (parasmai);"to bring".

lena — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, -Abstract]; (ātmane); "to take". [+Opr.]; "ātmane".

səməjhna — [+NP, .+comp, -ne, +kɪ +S, +Passive, +NP +se, +Opr.]; [+Human]; [+Abstract]; (stative) (ātmane); "to understand, comprehend".

sina — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, -Abstract]; (ātmane) (parasmai); "to stitch".

sɪlna — [-NP, +NP +se, +Opr.]; [-Animate, -Abstract, +Opr. ja]; (stative); "to be stitched".

sɪl(v)ana — [+mdM, +Human]; Otherwise as sina; "to cause to be stitched".

sikhna — [+NP, +kɪ +S, +Passive, +NP +se, +Opr.]; [+Animate]; [+Abstract, +Opr. ja]; (stative) (ātmane); "to learn".

sɪkhana — [+mdR, +Human]; Otherwise as sikhna; (parasmai); "to teach".

socna — [+NP, +kɪ +S, +Passive, +NP +se, +Opr.]; [+Human]; [+Abstract]; (ātmane); "to think".

hə̃sna — [-NP, +Passive, +NP +se, +Opr.]; [+Human, +Opr. oth, pər]; (ātmane) (parasmai); "to laugh".

hə̃sana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to make someone laugh".

harna [+NP, +Concomitive, +Opr.]; [+Human, +Opr. ja]; (stative); "to be defeated".

hərana [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to defeat".

hona [+Pred, +Copula]; "to be".

hona [+Pred, +Opr. ja]; [±Animate, -Abstract]; "to become".

[+Pred, +Opr. ja]; [+Abstract]; "to happen".

Conjunct Verbs

khəṛa hona — [-NP, +Passive, +NP +se, +Opr.]; [+Animate, +Opr. ja]; "to stand".

khəṛa kərna — [+NP, +Passive, +NP +se, +Opr.]; [±Human]; [±Animate, -Abstract]; (parasmai); "to stand |transitive|".

khətm kərna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, +Abstract]; (ātmane) (parasmai); "to finish, end |transitive|".

dıkhai{dena / pəṛna} — [+Nom, +Opr.]; [±Human]; [±Animate, -Abstract, +Opr. ja]; "to be visible".

peš hona — [-NP, +pl]; [±Animate]; "to be present".

peš kərna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate]; (parasmai); "to present, put forward".

bənd kərna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [±Animate, -Abstract]; (ātmane) (parasmai) (instancy); "to shut".

yad kərna — [+NP, +Passive, +NP +se, +Opr.]; [±Human]; [±Animate]; (ātmane); "to remember, commit to memory".

vɪda kərna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to bid farewell to".

ɕɔrɔ kərna — [+NP, +Passive, +NP +se, +Opr.]; [±Human]; [-Animate, +Abstract]; (parasmai); "to begin".

səməjh ana — [+Nom]; [+Human]; [+Abstract]; "to comprehend".

sɔnai {dena / pərna} — [+Nom, +Opr.]; [±Human]; [-Animate, +Noise, +Opr. ja]; "to be audible".

svikar hona — [+Nom]; [+Human]; [-Animate, +Abstract]; "to be acceptable".

svikar kərna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [-Animate, +Abstract]; (ātmane); "to accept".

kṣəma kərna — [+NP, +Passive, +NP +se, +Opr.]; [+Human]; [+Human]; (parasmai); "to forgive".

Nouns

Animate

Human

admi, mənɔşy - man

ɔrət, stri - woman

ləṛka - boy

ləṛki - girl

bəcca - child (m)

bəcci - child (f)

malık - master

nɔkər - servant

mali - gardener

dai - maid

dhobi - washerman

lohar - blacksmith

sɑnar - goldsmith

bəṛhəi - carpenter

gvala - milkman

məzdur - labourer

vəkil - lawyer

sıpahi - constable

sɛnık - soldier

šıkşək - teacher

chatr - student

chatra - female student

jasus - detective

neta - leader

raja - king

rani - queen

raşţrəpətı - president

mã, mata - mother

bap, pıta - father

beţi - daughter

beţa - son

bəhu - daughter-in-law

jamata - son-in-law

caca - uncle

mama - uncle

caci - aunt

mami - aunt

mɔsi - aunt

bɑa - aunt

cəcera, məmera, mɔsera, phɑphera; bhai, bəhən - cousin

səngi təjñ - musician

nərtək - dancer (m)

nərtəki - dancer (f)

əbhınеta - actor

əbhınetri - actress

lekhək - writer

kəvı - poet

alocək - critic

Animals

kɷtta - dog
pɪlla - puppy
gɪrgɪṭ - chameleon (m)
bɪlli - cat
bɪlla - tom cat
gɪləhri - squirrel
ghoṛa - horse
ghoṛi - mare
gədha - donkey
gədhi - jenny
bəkra - goat
bəkri - nanny
bheṛ - ewe
bheṛa - ram
hɪrəṇ - stag
hɪrṇi - hind
khərha - rabbit
cuha - mouse
mẽṛhək - frog
məchli - fish
gay - cow
bɛl - bullock
sãṛ - bull
bhẽs - cow buffalo
bhẽsa - buffalo
bagh - tiger
šer - lion
bheṛɪya - wolf
lomṛi - vixen
sɪyar - jackal

Birds

cɪṛɪya (f) - bird
gərɛya (f) - sparrow
tota (m) - parrot
mɛna (f) - mynah
ɷllu (m) - owl
cil (f) - kite
gɪddh (m) - vulture
kəwa (m) - crow
həns (m) - swan
bətəkh (f) - duck
mɷrga - cock
mɷrgi - hen
cuja (m) - chick
mor - peacock
morni - peahen
koyəl (f) - cuckoo

Insects, etc.

məkkhi (f) - fly
məcchəṛ (m) - mosquito
məkṛi (f) - spider
kiṛa (m) - insect, worm
telcəṭṭa (m) - beetle

-Animate, -Abstract

Objects

ghər (m)	- house	dəstana (m)	- gloves
kəmra (m)	- room	moza (m)	- socks
dərvaza (m)	- door	təlıya (m)	- towel
khıṛki (f)	- window	botəl (f)	- bottle
kɷrsi (f)	- chair	pani (m)	- water
mez (f)	- table	šərab (f)	- alcoholic drink
kalin (m)	- carpet	dudh (m)	- milk
bıstər (m)	- bed	cay (f)	- tea
cadər (f)	- sheet	gehũ (m)	- wheat
təkıya (m)	- pillow	cavəl (m)	- rice
rəsoi (f)	- kitchen	dhan (m)	- paddy
bərtən (m)	- utensil	dal (f)	- lentils
thali (f)	- plate	məkkhən (m)	- butter
kəṭora (m)	- bowl	tel (m)	- oil
gılas (m)	- glass	roṭi (f)	- bread
kẽci (f)	- scissors	səbzi (f)	- vegetables
caku (m)	- knife	alu (m)	- potato
kãṭa (m)	- fork, thorn	pyaz (m)	- onion
cəmməc (f)	- spoon	bẽgən (m)	- egg plant
kəpṛa (m)	- cloth	sag (f)	- spinach
pajama (m)	- pajamas	sem (f)	- beans
kɷrta (m)	- shirt	məṭər (m)	- peas
kəmiz (f)	- shirt	bhɷṭṭa (m)	- corn
dhoti (f)	- dhoti	seb (m)	- apple
saṛi (f)	- saree	kəla (m)	- banana
juta (m)	- shoes	narəngi (f)	- orange
cəppəl (f)	- sandals	pəpita (m)	- paw-paw
ṭopi (f)	- hat	am (m)	- mango
pəgṛi (f)	- turban	ımli (f)	- tamarind

lici (f) - lychee
məsala (m) - spices
mɪrc (f) - chilli
nəmək (m) - salt
nav (f) - boat
rel (f) - train
gaṛi (f) - vehicle
ḍəbba (m) - box, carriage
ghəṛa (m) - pot
balṭi (f) - bucket
ḍãṛ (f) - oar
pal (f) - sail
tak (m) - shelf
divar (f) - wall
pətthər (m) - stone
mɪṭṭi (f) - mud
zəmin (f) - ground
mɛdan (m) - field
khet (f) - field (for cultivation)
həl (m) - plough
kɔlhaṛi (f) - axe
ara (m) - saw
həthoṛa (m) - hammer
hãsɪya (m) - sickle
mal (m) - cargo
bojh (m) - load
kəpas (m) - cotton
loha (m) - iron
sona (m) - gold
cãdi (f) - silver
tãba (m) - copper
pitəl (m) - brass

təkṛi (f) - wood
thɛla (m) - bag
rəssi (f) - rope
dhaya (m) - thread
sənduk (m) - box
bətti (f) - lamp
kələm (f) - pen
kagəz (m) - paper
pensɪl (f) - pencil
kɪtab (f) - book
əxbar (m) - newspaper
pətr (m) / pətrɪka (f) - periodical
pətr (m) / cɪṭṭhi (f) - letter
lekh (m) - article
nɪbəndh (m) - essay
ɔpənyas (m) - novel
kəhani (f) - fiction
kəvɪta (f) - poem
peṛ (m) - tree
pədha (m) - plant
ləta (f) - creeper
ghas (m) - grass
bhusa (m) - hay
cara (m) - fodder, bait
phul (m) - flower
gɔlab (m) - rose
kəməl (m) - lotus
juhi (f) - jasmine
gẽda (m) - marigold
rɔpya (m) - rupee
rejgari (f) - change

+Abstract

spərš (m) - touch
svad (m) - taste
sɑgəndh (f) - fragrance
dɑrgəndh (f) - odour
šəbd (m) / avaz (f) - noise
nrɪty (m) - dance
səngit (m) - music
kavy (m) / sahɪty (m) - literature
kəla (f) - art
kəlpəna (f) - imagination
gɑssa (m) / krodh (m) - anger
dukh (m) - sorrow
xɑši (f) / hərṣ (m) - pleasure
anənd (m) - bliss
ləjja (f) / šərm (f) - shame
sənkoc (m) - shyness
bhəy (m) / ḍər (m) - fear
lobh (m) / laləc (m) - greed
cɪnta (f) - worry
cɪntən (m) - thought
dəršən (m) - philosophy
adərš (m) - ideal
məhətv (m) - importance
məhatta (f) - greatness
ləkṣy (m) - aim

ajña (f) - command
prətɪjña (f) - promise
svikrɪtɪ (f) - acceptance
ənɑmatɪ (f) - permission
əvkaš (m) / chɑṭṭi (f) - leisure
səbhyəta (f) - civilization
sənskrɪtɪ (f) - culture
jñan (m) - knowledge
vɪjñan (m) / šastr (m) - science
dhərm (m) - religion
kərtəvy (m) - duty
ənɑbhəv (m) - experience
ənɑbhutɪ (f) - aesthetic experience
gɪnti (f) - counting
ədhyəyən (m) - study
dhyan (m) - concentration
ədhyapən (m) - teaching
bhəlai (f) - goodness
bɑrai (f) - badness
gɑṇ (m) - quality, virtue
səbhagy (m) - good fortune
dɑrbhagy (m) - misfortune
dəya (f) - pity
səhanɑbhutɪ (f) - sympathy
sãntvəna (f) - condolence
dhɛry (m) - patience
sahəs (m) - courage

virta (f)	- boldness
kayərta (f)	- cowardice
kʂəma (f)	- forgiveness
smrıtı (f)	- memory
vısmrıtı (f)	- forgetfulness
nyay (m)	- justice
bɷddhı (f)	- intelligence
hə̃si (f)	- laughter
rona (m)	- crying
səməjh (f)	- understanding
dıkhava (m)	- show
bəhana (m)	- pretension, excuse
bəhav (m)	- flow
prəbhav (m)	- influence
prəšənsa (f)	- praise
yəš (m)	- fame
vınod (m)	- humour
gambhiry (m)	- seriousness
səntoʂ (m)	- satisfaction
prarəmbh (m) šɷrɔat (f)	- beginning
ənt (m) khatma (m)	- end
kal (m)	- time
deš (m)	- space
pɔŋy (m)	- good deeds
pap (m)	- sin
adhar (m)	- basis
acərəŋ (m)	- behaviour
šıʂţacar (m)	- good behaviour
prətha (f)	- custom
nitı (f)	- policy
yojna (f)	- plan
ayojən (m)	- arrangement
səngəţhən (m)	- organization
nırmaŋ (m)	- building
srıʂţı (f)	- creation
vıʂəy (m)	- subject
vıvad (m)	- argument
vıcar (m)	- thought
sima (f)	- limit
bəndhən (m)	- bondage
mɷktı (f)	- release

Adjectives

Attributive

Form

bəṛa	- big
choṭa	- little
bhotha	- dull
moṭa	- fat, thick
pətla / dɑbla	- thin
cəṛa	- broad
vɪšal	- great
nɑkila	- sharp
gol	- round
cɔkor	- square
sukha	- dry
ləmba	- long
gila	- wet
sidha	- straight
khəṛa	- vertical
pəṛa	- horizontal
ṭeṛha	- crooked
həlka	- light
bhari	- heavy
tɪrcha	- diagonal
ũca	- high
nica	- low

Colour

lal	- red
nila	- blue
həra	- green
pila	- yellow
kala	- black
səfed	- white
sɑnəhra	- golden
bhura	- brown
gɑlabi	- pink
phika	- faded
cəṭkila	- showy, bright

Temporal

nəya	- new
pɑrana	- old
taza	- fresh
pracin	- ancient
adhɑnɪk	- modern
əgla	- forthcoming
pɪchla	- past
mɔsmi	- seasonal
ṭɪkau	- lasting

Attribute

əccha	- good
bɑra	- bad
ɑcɪt	- proper
ənɑcɪt	- improper
səcca	- true

jhuṭha	- untrue
dɷṣṭ	- villainous
šəravəti	- mischievous
šant	- calm
nyayi	- just
yogy	- suitable, fit
vyəst	- busy
svəsth	- healthy
rɷgṇ	- ill
dhəni	- rich
gərib	- poor
khəra	- genuine
khoṭa	- counterfeit
nırdoṣ bhola	- innocent
əpradhi	- criminal
sɷndər	- beautiful
kɷrup	- ugly
asan	- easy
mɷškıl kəṭhın	- difficult
avəšyək	- necessary
bənd	- closed
khɷla	- open
miṭha	- sweet
khəṭṭa	- sour
kəṛva	- bitter
tita	- hot (spicy)
gərm	- hot (warm)
ṭhəṇḍa	- cool
xɷš	- happy
dɷkhi	- sorrowful

Numerals

ek	- one
do	- two
tin	- three
car	- four
pãc	- five
chc	- six
sat	- seven
aṭh	- eight
nɔ	- nine
dəs	- ten
adha	- half
ḍeṛh	- one and a half
ḍhai	- two and a half
saṛhe tin	- three and a half
cɔthai	- quarter
tin cɔthai	- three quarters
səva	- one and a quarter
səva do	- two and a quarter
pəhla	- first
dusra	- second
tisra	- third
cɔtha	- fourth
pãcvã	- fifth
chəṭha	- sixth
satvã	- seventh
aṭhvã	- eighth
donõ	- both
tinõ	- all three
carõ	- all four

Collective

kɔl, səmuca	-whole, total
səb, sara	-all

Predicative

məna	-- forbidden
kətɪpəy	- few
khətm	- finished
šɔrɔ	- begun

Adverbs

Time

əb	- now
jəb	- when
təb	- then
aj	- today
kəl	- tomorrow, yesterday
pərsõ	- day before yesterday, day after tomorrow
səbere	- in the morning
ləgatar	- continuously
pəhle	- before
bad (mẽ)	- after(wards)

dɪn	- day
rat	- night
šam	-evening
dopəhər	- noon
səptah, həfta	- week
məhina	- month
sal, vərṣ	- year
ek, do bəje, ..	one, two o'clock, ...

Place

age, samne	- in front of
piche	-- behind
pas, nɪkəṭ	- near
aspas	- around
dur	- far
upər	- above
dahɪne	- on the right
bãye	- on the left
bahər	- outside
bhitər	- inside
yəhã	- here
vəhã	- there
jəhã	- where

Manner

əkəsmat, əcanək	- suddenly
jhəṭpəṭ, jəldi se	- quickly
dhire se, dhire-dhire	- slowly
pɛdəl	- on foot
tezi se	- with speed
yõ	- in this manner
dhime, ahɪsta	- softly

Sentence Adverbials

hã	- yes
nəhĩ	- no
səcmɔc	- truly
bɪlkɔl	- entirely
sɪrf	- only
əvəšy, zərur	- certainly
spəṣṭ hi	- obviously
vastəv mẽ	- in fact

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