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A GENERATIVE GRAMMAR OF KANNADA

by

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CONTENTS

Chapter One

Kernel

Summary of Chapter One (Constituent Structure)

1

This chapter consists of a 'kernel grammar,' an ordered set of expansion rules; these rules generate terminal strings on which all the later transformation rules operate to yield actual Kannada sentences.

2

Symbols and Conventions

+   precedes free forms or constructions, in the rules; in the notes and elsewhere, it means phonemic juncture

✦   precedes free forms or constructions that may change places with any other similarly marked form in the rule, usually making no grammatical difference; emphasis is not reckoned grammatical; where it does contrast structurally, the note will mention it

∧   precedes bound forms

⩘   precedes bound forms that may be affixed to any of the ✦ or + marked items in the rule

⟨ ⟩   means that the enclosed items are optional

{ }   means that the enclosed forms are paradigmatic: the items that are arranged one below the other are potential choices and may substitute for each other, but may not co-occur

[ ]$_i$ mean the same as { }, with one difference: when two or more of them occur in a rule, bearing the same subscript, the order within the square brackets is significant; A,B,C in the first bracket corresponds to a,b,c in the second, and so on, in the example below. Where the same items occur (A,B,C) it is meant that they are in the same order as in the first bracket.

$$\begin{bmatrix} A \\ B \\ C \end{bmatrix}_i + \begin{bmatrix} a \\ b \\ c \end{bmatrix}_j \longrightarrow \begin{bmatrix} A \\ B \\ C \end{bmatrix}_i + \begin{bmatrix} a' \\ b' \\ c' \end{bmatrix}_j$$

$\longrightarrow$ means 're-write what appears on the left hand side
as what appears on the right hand side of the arrow'

$\Longrightarrow$ means that the rule is a transformation rule
Subscripts mean a concord relationship, i.e., two
items with the same subscript agree with each other.
Items with no subscripts need not agree with any
other in the rule.

An explanatory note follows each rule, and some examples
of sentences generable by the rule (given the previous
rules and the later lists) follow the note. The forms
cited in the rules, as in the lists, are in morphopho-
nemic writing, and those in the notes in phonemic writing.
The glosses are given in parentheses after each cited
form in the notes, or in parallel columns where columns
of items are cited. Examples are given in phonemic
notation. Whenever possible, the Kannada items are
numbered; and the corresponding English glosses will
carry the same numbers. This implies again no systematic
equivalences, but only clues to the differences in order,
etc. between the English translation and the Kannada
original, and serves to keep the English intelligible as
well as identify the chief Kannada items. Spaces indi-
cate external open junctures.

4

$$S \longrightarrow \quad \# \quad \begin{Bmatrix} S'^{\wedge}k \\ Gr \\ N\text{!} \\ I \end{Bmatrix} \langle \wedge voc \rangle \quad {}^{\wedge}R \quad \# $$

The rule presents three kinds of Kannada utterance that may occur between pause junctures #. To two of them a clitic R may be added. Gr is a set of words like havdu (yes), and greetings like namaska·ra (salutations) to which a vocative voc may be added. S'^k is a sentence to which a gender-number-person feature is attributed (^k). N! is a nominal that can be used with a {!} intonation, meaning address, like Ra·ma! (O Rama!). I covers interjections.

Intonation patterns are omitted from this presentation. They may easily be included in the generative pattern (cf Stockwell*196. by introducing a first rule of the form

$$s \longrightarrow S + IP$$

and expanding the IP in a later section.

$S'^{\wedge}k^{\wedge}R$ = ra·ma[1] banda[2] alve·ne[3] Rama[1] came,[2] isn't it so?[3] (fem addressee)

$Gr^{\wedge}voc$ = namaskara[1] ·ri[2] Greetings[1] (honorific plural)[2] (here facetious)

$N\text{!}$ = Kiṭṭu·! Kiṭṭu! (a shortened form for Kriṣṇa)

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* Stockwell, Robert P., "The place of intonation in a generative grammar of English", Language vol· 36, No· 3, 1960.

$$S'\,^{\wedge}k \quad \longrightarrow \quad A^{\wedge}k_j \ * \ B^{\wedge}k_j$$

$S'\,^{\wedge}k$ is next analyzed into two pieces, each of which has now k the g-n-p feature, i.e., the two pieces agree in the gender-number-person feature.

$A^{\wedge}k_j \ * \ B^{\wedge}k_j$ = mane·l[1] magu[2] malgide[3]#	At home[1] the child[2] is sleeping.[3]
magu mane·l malgide#	The child at home is sleeping.
malgide magu mane·li#	is sleeping, the child, at home.

The concord $A^{\wedge}k_j + B^{\wedge}k_j$ eliminates some rare but perfectly possible non-concords - as in a fairytale where a heroine in male disguise is identified:

avne·[1] yivḷuʃ[2] 'That-very-he[1] is this-sheʃ'[2]

(That man is this girlʃ)

But as these are not in the general run of occurrence, and as these can always be generated by suspending the above general concord rule by a specific one, we list no exceptions under this rule.

$$B\char`^kj \dashrightarrow \begin{cases} A \quad \char`^kj \quad \langle + \text{ alla}\rangle \\ \langle A\char`^k\char`^an \quad \neq\rangle \quad VP_t\char`^kj \\ VP_{in} \char`^kj \end{cases}$$

B is first expanded because it includes A in its three possible (K. 11b) exponents. The other two are a transitive VP_t with $A\char`^k$ an as the object ( an being the accusative suffix) and an intransitive Verb Piece $VP_{in}$. $A\char`^k\char`^an$ is shown as optional, as it is often omitted in colloquial speech. So the distinction between VP_t and VP_{in} is in the potential presence of the object for VP_t, rather than in its obligatory actual presence in all cases. Further, some VP_{in}'s can take a restricted class of objects, cognate objects, as in

avnu[1] vond[2] arac[3] aracda[4]   He[1] yelled[4] a[2] yell.[3]

This latter fact is taken care of by a rule after the verb lists (Top 35).

$A\char`^kj \quad \neq \quad A\char`^kj$		avnu[1] hudᵻga[2]
		He[1] (is) a boy[2]
$A\char`^kj \quad \neq \quad A\char`^kj \neq$ alla		avnu[1] hudᵻga[2] alla[3]
		He[1] is not[3] a boy[2]
$A\char`^kj \quad \neq \quad A\char`^k\char`^an \neq VP_t\char`^kj$		kiṭṭu[1] ra·mu·n[2] hodᵻda[3]
		ra·mu·n[2] kiṭṭu[1] hodᵻda[3]
		hodᵻda[3] kiṭṭu[1] ra·mu·na[2]
		Kittu[1] beat[3] Ramu[2]

$A^{\wedge} kj \quad \doteq \quad VP_{in} kj$

kiṭṭu[1] vo·ḍɨda[2]

vo·ḍɨda kiṭṭu

Kittu[1] ran[2]

$$VP\begin{bmatrix} t \\ in \end{bmatrix}_i \quad {}^{\wedge}kj \quad \longrightarrow \quad \langle T_q + \rangle \; Vb\begin{bmatrix} t \\ in \end{bmatrix}_i \; {}^{\wedge}\left\{ \begin{array}{c} \left\{\begin{array}{c} li \\ Bahd \\ Neg \end{array}\right\} \\[1em] t_q \; {}^{\wedge}\left\{\begin{array}{c} kj \\ \langle l \rangle \end{array}\right\}{}^{\wedge}illa \end{array}\right\}$$
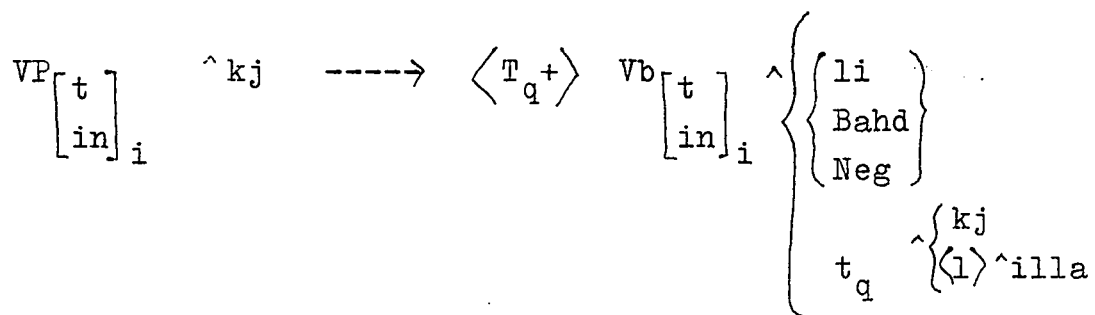
Verb Phrase VP includes an optional time phrase T_q that agrees with the tense suffix t_q. The Verb Vb, transitive or intransitive, is followed by t_q and concordial suffixes or a negative $\langle l \rangle {}^{\wedge}illa$ ($l{}^{\wedge}illa$ means, <u>didn't</u>, and illa <u>haven't</u>). Or, Vb may be followed by imperative li, several modals subsumed under Bahd, and negatives Neg, which have no concord restrictions (no kj follows or precedes them). $l {}^{\wedge}illa$ is separated from the other negatives as it participates in the $T_q \cdots t_q$ concord. In fact it is the negative form for the verb iru <u>to be</u>, and can also be introduced with it in a later Top. There are a couple of verbs in this idiolect, notably ka·nu <u>to see</u>, which have person-number distinctions in the negative. They are treated after the lists, and the relevant forms introduced by Top (38 p233).

$$A{}^{\wedge}kj + T_q + Vb_{in} + \left\{\begin{array}{l} li \\ Bahdu \\ Neg \\[1em] t_q \, {}^{\wedge}kj \end{array}\right\}_i \; = \; kittu[1] \; na·le[2] \left\{\begin{array}{l} barli[3] \\ barb\overset{h}{o}du[4] \\ barba·rdu[5] \\[0.5em] barta·ne[6] \end{array}\right\}_i$$
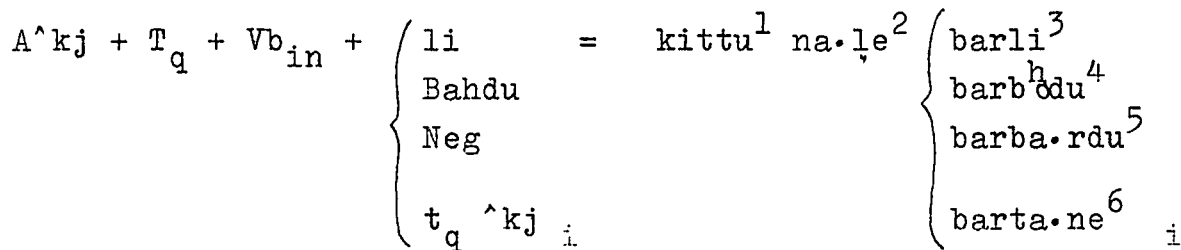
=   Let^3 Kittu^1 come^3 tomorrow^2
K might come^4 tomorrow
K shouldn't come^5 tomorrow
K comes^6 tomorrow

a) $\text{Vb}\begin{bmatrix} t \\ in \end{bmatrix}_i \quad \longrightarrow \quad \langle \text{Adv+} \rangle \begin{bmatrix} V_t^! \\ V_{in} \end{bmatrix}_i \quad \langle {}^\wedge s \rangle \; \langle {}^\wedge i {}^\wedge PV \rangle \left\langle \begin{matrix} {}^\wedge ir \\ a \cdot g \end{matrix} \right\rangle$

b) $V_t^! \quad \longrightarrow \quad \begin{cases} V_t \langle {}^\wedge s \rangle \\ V_{in} \; {}^\wedge s \end{cases}$

c) $PV \quad \longrightarrow \quad pv \; \left\langle {}^\wedge i {}^\wedge \begin{Bmatrix} biq* \\ kol^n \end{Bmatrix} \right\rangle$

Vb's, transitive and intransitive, are expanded to include an optional adverb, and the causative suffix s which can be added to either kind of verb. Two s suffixes may be added; the first being a transitivizer in the case of V_{in}, the second being the causative. When only one is added, V_{in} is both transitive and causative; with both, it has the additional meaning of 'cause to cause'.

e.g.

vo·du	to fun
vo·dɨsu	to drive, to cause to run
vo·dsɨsu	to make someone drive
kattu	to build
katsu	to cause to build
katsɨsu	to make someone build

All compound tenses like vodsidda (he had driven, etc., and aspect-features like vo·dɨsbitta (he drove it away), are taken care of by the PV's introduced here.

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PV's are post-verbs or aspect-markers.   i is the past
adverbial-participial suffix.   Details and examples are
in the notes to the verb-lists where pv is expanded.
Alternative solutions are suggested elsewhere (p. 218).

Adv + V_{in} ^k   =   be·g^1 vo·ḍda^2 (He) ran^2 quickly^1

  V_{in} ^s^k   (avnu) be·g^1 (ga·ḍi·n)^2 o·ḍɨsda^3

                     (He) drove^3 (the cart)^2 fast^1

$$T_q \quad \dashrightarrow \quad \begin{cases} F \\ P \\ I \end{cases}$$
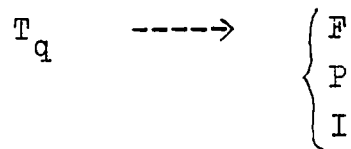
Time phrases are of three kinds, according to their agreement with t_q. The agreement restrictions are given by Tob (rule 6,7). If one chooses to consider this agreement a semantic matter and not a grammatical one, this breakdown and the later Tob will not be necessary.

$A^\wedge k_j \ast T_q \neq V_{in}^\wedge k_j = $ avnu[1] na·le[2] barta·ne[3]

nenne[4] banda[5]

ivattu[6] barli[7]

He[1] will come[3] tomorrow[2]

He[1] came[5] yesterday[4]

Let him[1] come today[6]

etc.

$$t_q \quad \dashrightarrow \quad \begin{cases} d \; {}^{\curvearrowright}\langle C\rangle \\ ut \end{cases}$$

Tense suffixes are of two kinds according to the kinds of stem they select: past d, and present ut. C is contingent, which has the same stem as the past; so it is indicated as bound to d.

For examples see later rules 15, 17, etc.

Adv   ----→ $\begin{cases} \text{A}^\wedge\text{k}^\wedge\text{ca} \; \langle + \text{ Postpo}^\wedge\text{ca}\rangle \\ \text{Imit}^\wedge\text{anta} \\ \text{adv} \\ \text{Po1} \\ \text{Po2} \end{cases}$

Adv of rule 5 is expanded:

a) a Nominal piece with a case affix, optionally followed
   by a post-position selected by it;

b) mimetic or onomatopoetic words;

c) adverbs, to be specified by the next rule;

d) and e) certain post-positional particles of location
   and time, occurring by themselves.

Restrictions on Adverbs are given in the next rule.

Examples for items, in the order given:

allind a·ce	beyond that (alli=there + inda=instrumental)
b^{h}agganta	'saying b^{h}ag', (of something catching fire)
sumne	merely
me·le	above
a·ce	outside

```
adv      ------        adv 1      +     adv 2
                       adv 1,2          adv 3 ᵢ
```

This rule gives us different kinds of adverbs, and their
particular order-restrictions. adv 1 may occur before
adv 2, adv 1,2 before adv 3, but not the other way around.
Any of these may occur by themselves before verbs. When
all the items are in angle brackets, at least one item must
be chosen.

```
adv 1    bahiḷa     a lot, very
adv 2    solpa      a little
adv 3    taṇṇige    cold
```

```
bahiḷa solpa       very little
bahiḷa taṇṇige     very coldly
solpa taṇṇige      a little coldly
```

but not *solpa bahiḷa, taṇṇige bahiḷa, etc.

$$\text{A k ca} \quad \text{-----} \quad \text{A k} \quad a\char94\begin{Bmatrix} g \\ \text{ind} \\ \text{al} \end{Bmatrix} \quad \text{Genitive} \begin{Bmatrix} \text{Dative} \\ \text{Ablative} \\ \text{Locative} \end{Bmatrix}$$

This rule expands ca (case-endings) into the three

cases, dative, ablative and locative, added to the

genitive (i.e., A^genitive = oblique stem). The case-

endings are added after gender-number markers. m/f nouns

take the genitive before the datives; cf. their the

morphophonemic rule that gives the dative allomorphs (p. 191).

It may also be noted that the case-endings are added to

the entire A^k, which includes all the gender-number suf-

fixes. The following example is that of a neuter noun:

mara	tree
mara·na	tree (Acc)
marakke	to the tree (dat)
marada	of the tree (gen)
mardinda	from the tree (abl)
mardalli	in the tree (loc)

Here is a sample chart of the 'semantic load' that three Kannada cases, Dative, Locative and Ablative, carry in the language; the Genitive and the Accusative do not need any comment, from this point of view. Roughly the three cases correspond to certain English prepositions, and the forms that include them function like English prepositional phrases; as the comparison suggests, the variety of uses for these in the daily idiom is bewildering and no system of semantic categories has yet been set up to take care of all of them. The variety of the usage can further be seen by a look at the Post-positions that select particular cases (L.6,p.136). The small list of English prepositions used here is supposed to be suggestive of the semantic functions, no more.

	AT	AMONG	BY	FOR	FROM	IN	OF	TO	WITH
Ablative			1		2	3	4		5
Dative	1		2	3	4		5	6	
Locative	1	2				3	4		

Ablative:
1. avninda[1] yi. kelsa[2] ma·disde.[3]
2. me·strinda[1] pa·t^{h}a[2] kalita.[3]
3. suk^{h}adind[1] idda.[2]
4. yi. kurci[1] mardinda[2] ma·diddu.[3]
5. nan kanninda[1] nodde.[2]

1. I got[3] this job[2] done[3] by him.[1]
2. He learnt[3] the lesson[2] from the teacher.[1]

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3. He lived[2] _in_ happiness.[1]
4. This chair[1] (is) (one) made[3] _of_ wood.[2]
5. I saw it[2] _with_ my eyes.[1]

Dative:

1. yenṭ gante·g[1] barti·ni.[2]
2. baro· tingiḷge[1] nammagu·g[2] enṭ varṣa
   vayassu.[3]
3. hat ru·pa·yig[1] va·c[2] koṇkoṇde.[3]
4. mane·g mane vyatya·sa yiritte.
5. avnu papak hedirdo·nu·
6. yidann[1] avnig[2] koḍu.[3]

1. I will come[2] _at_ eight o'clock.[1]
2. _By_ next month[1] (_for_) our child ('will be')
   eight years of age.[3]
3. I bought[3] a watch[2] _for_ ten rupees.[1]
4. _From_ house _to_ house there will be differences.
5. He is a man who is afraid _of_ sin.
6. Give[3] this[1] _to_ him.[2]

Locative:

1. avinna[1] yenṭ gante·l[2] no·dde.[3]
2. kuridralli[1] vokkanniddavne·[2] ra·ja.[3]
3. maysu·rnalli[1] armane[2] yide.[3]
4. adu[1] mardal[2] ma·diddu.[3]

1. I saw[3] him[1] _at_ (about) eight o'clock.[2]
2. _Among_ the blind,[1] the one-eyed fellow[2]
   (is) king.[3]
3. _In_ Mysore[1] there is[3] a palace.[2]
4. That[1] (is) (a thing) made[3] _of_ wood.[2]

a)   A $----\rangle$ $\left\langle \left\{ \begin{matrix} A^{\wedge}k^{\wedge}a \\ Adj \end{matrix} \right\} \right\rangle + A'$

b) A' $----\rangle$ $\left\{ \begin{matrix} Adj \\ N \\ Nn \end{matrix} \right.$

A, the nominal piece, may always be preceded by Adj
(adjectives) and $A^{\wedge}k^{\wedge}a$ (a being the genitive). This
is a recursive rule, generates an infinite series. Now
A of rule   is unpacked into adjectivals Adj, Nouns N,
I and II person pronouns Nn. The recursive rule, always
to be used sparingly, is introduced here because it
describes most simply all the possibilities of attri-
bution. The possibilities of predication (predicative
adjectives, etc.) are taken care of by the expansion of
$A^{\wedge}k$; those of attributive phrases by the Top'(8).
The possibility of all the Adj's in series being numerals
or Pr_{123}'s is eliminated by a Tob (10); they may occur
in series only in co-ordination.

$A'^{\wedge}k^{\wedge}a + A'^{\wedge}k^{\wedge}a + A = $ a.[1] doddannan[2] mu·rne·[3] maga[4]
                 That[1] big brother's[2] third[3] son[4]

$Adj + Adj + A$ $=$ mu·r[1] dod[2] haldi·[3] mane[4]
                three[1] big[2] yellow[3] houses[4]

Adj^k   =   doḍḍavnu
                         the big man

N   =   mane,[1] hudɨga,[2] si·ta[3]
                         house,[1] boy,[2] (the girl) Sita[3]

Nn   =   na·nu,[1] ni·nu[2]
                         I,[1] you[2]

```
Adj     -----      Prl23 +   Nu   +    Nu^ne +  Ad
                              Nul
                              ella.
```

Adj of rule 11 is broken down into adjectives Ad, numerals
ordinal Nu^ne, cardinal Nu, indefinite quantifiers Nu 1,
ella ('all') and the pronominal forms Prl23 (the remote and
proximate demonstratives and the interrogative). Vondu and
yer±du (one and two) are separated from Nu's (cf. K. 22)
because they have gender-number distinctions; so do Nu 1 and ·⌐
ella. (Tob 8). That the rest of the Nu's do not take k is
shown by kernel rule 22.

The above rule also gives the positional privileges of the
various types of adjectives. Where all the items are in
angle brackets, at least one must be chosen. Further order-
restrictions are to be found elsewhere (Top 10).

mu·r mane	three houses (Nu)
cik mane	small house(s) (Ad)
ella· mane	all houses
kelav mane	some houses (Nul)
mu·rne· mane	the third house (Nu^ne)
ya·v mane	which house(s) (Pr3)

ya·v mu·r bah±la cik mane   Which three very small houses?

Ad   ----→   ⟨adv 1, 2 +⟩   ⟨ad⟩

Ad of previous rule can be of three kinds, adv 1, adv 2, and ad. adv 1 and 2 may occur before ad or by themselves.

$$Nn^{\wedge}k \quad \dashrightarrow \quad \begin{Bmatrix} na \cdot n \\ ni \cdot n \\ ta \cdot n \end{Bmatrix} \langle {}^{\wedge} pl \rangle$$

Before the person-number-gender values can be assigned to k in the verb we need to expand $Nn^{\wedge}k$ into the first, second and reflexive persons, as in this rule. All of them can be pluralized.

a. $\begin{bmatrix} na\cdot n \\ ni\cdot n \end{bmatrix}_i$ ^pl + X $\begin{bmatrix} d \\ ut \\ d^\frown C \end{bmatrix}_j$ ^k $\longrightarrow$ $\begin{bmatrix} na\cdot n \\ ni\cdot n \end{bmatrix}_i$ ^pl + X

$$\begin{bmatrix} d \\ ut \\ d^\frown C \end{bmatrix}_j \wedge \begin{bmatrix} vi \\ ri \end{bmatrix}_i$$

b. $\begin{bmatrix} na\cdot n \\ ni\cdot n \end{bmatrix}_i$ + X $\begin{bmatrix} d \\ ut \\ d_\wedge C \end{bmatrix}_j$ ^k $\longrightarrow$ $\begin{bmatrix} na\cdot n \\ ni\cdot n \end{bmatrix}_i$ + X^

$$\begin{bmatrix} \begin{bmatrix} d^o e \\ d^o e \end{bmatrix}_i \\[2ex] ti\cdot{}^o \begin{bmatrix} ni \\ ya \end{bmatrix}_i \\[2ex] \begin{bmatrix} e\cdot{}^o n \\ i\cdot{}^o ya \end{bmatrix}_i \end{bmatrix}_j$$

Where X is all that precedes t_q in K 4.

These two rules expand the three-tense verb paradigm for the first and the second persons. First the plural endings are given, as they can be derived from the singular ones (given in b), by the addition of vi and

ri, and making the necessary morphophonemic adjestments.
^{o} is a morphophoneme used elsewhere in these rules; it
signifies the deletion of all that follows it, when the
form is placed before certain suffixes (in this case, the
plural endings given in a.). A general morphophonemic
rule will take care of this later (Tob 51).

na·nu[1] vo·ḍḍe[2]   I[1] ran [2]
na·vu vo·dɨdvi   We ran

ni·nu vo·ḍti·ya   You run
ni·vu vo·ḍti·ri   You (pl) run

    etc.

$$
\begin{bmatrix} na{\cdot}n \\ ni{\cdot}n \\ ta{\cdot}n \end{bmatrix}_i \; {\wedge}\; pl \quad \text{-----}{\rightarrow} \quad \begin{bmatrix} na{\cdot}v \\ \begin{Bmatrix} ni{\cdot}v \\ ta{\cdot}v_1 \end{Bmatrix} \\ ta{\cdot}v_2 \end{bmatrix}_i
$$

Now the plural forms of the three pronouns of K 14 are given. ni·nu (you) has two plurals, ni·vu and ta·vu$_1$, the latter being ultra honorific. ta·nu the reflexive has a form identical with the plural of ni·nu, so it is numbered: ta·vu$_2$.

$$\begin{bmatrix} na{\cdot}n \\ ni{\cdot}n \\ na{\cdot}v \\ ni{\cdot}v \\ ta{\cdot}v_1 \end{bmatrix}_i + X^\wedge li \longrightarrow \begin{bmatrix} na{\cdot}n \\ ni{\cdot}n \\ na{\cdot}v \\ ni{\cdot}v \\ ta{\cdot}v_1 \end{bmatrix}_i + X \begin{bmatrix} tini \\ \emptyset \\ o{\cdot}\underset{\bullet}{n}a \\ i \\ o{\cdot}\underset{\bullet}{n}va{\cdot}gli \end{bmatrix}_i$$

Where X is all that precedes li in K4.

The imperative paradigm for the first and second persons, both singular and plural is displayed here. Na·nu has no special imperative form, the present tense ending being used instead. Ni·nu has a zero ending.

ta·nu and its plural ta·vu$_2$ are left out of this and the previous two rules, as it has the same paradigms for the tenses and the imperative as all other nouns which it may substitute for; so it is included by a Top under the third personal pronominals that substitute for all nominals.

ni·nu	ho·gu	You go
ni·vu	ho·gi	You (pl) go
ta·vu	ho·go·nva·gli	Let it be that you (hon) go·
na·vu	ho·go·na	Let us go

a) $\quad k \quad \longrightarrow \quad \begin{Bmatrix} m \\ f \\ n \end{Bmatrix} \langle {}^\wedge pl \rangle$

b) $\quad X^\wedge \begin{Bmatrix} m \\ f \end{Bmatrix} {}^\wedge pl \quad \longrightarrow \quad X {}^\wedge mf^\wedge pl$

Where X is not a noun.

Now values are assigned to k for all its remaining occurrences: they are masculine, feminine, neuter, and their respective plurals. (As indicated earlier, all k's with the same subscripts in any formula agree with each other within the formula, i.e., they have the same values for k.) That is, in nouns, verbs and the pronominals, there are three gender- and two number-oppositions.

b) indicates that only nouns have all the six possible distinctions, of three genders and three plurals for each of them; in verbs and pronominals masculine plural and feminine plural are conflated into one epicene plural.

a.
$$\begin{bmatrix} \begin{bmatrix} ut \\ d \\ d^\wedge C \end{bmatrix}_k \begin{bmatrix} m \\ f \\ n \end{bmatrix}_j \end{bmatrix}_i \longrightarrow \begin{bmatrix} \begin{bmatrix} t^\wedge e \\ d \\ a \cdot \end{bmatrix}_k {}_\wedge \begin{bmatrix} n \\ \underset{\cdot}{l} \\ t2 \end{bmatrix}_j \end{bmatrix}_i$$

b.
$$\begin{bmatrix} \begin{Bmatrix} n \\ \underset{\cdot}{l} \end{Bmatrix} \\ t2 \end{bmatrix}_i {}^\wedge pl \longrightarrow \begin{bmatrix} r \\ v \end{bmatrix}_i$$

The three tenses (present, past, and contingent) and the corresponding gender-number endings are shown here for all occurrences other than those accounted for by the previous rules (14a and b). Morphophenemic adjustments have to be made for t^e^n etc. before we get the actual forms. b. gives the epicene and the neuter plural endings, again requiring some adjustments.

ra·ja	ra·jya·n a·l̥ta·ne	The raja rules the kingdom
ra·ni	ra·jya·n a·l̥ta·le	The rani rules the kingdom
ra·ja·ra·ni	ra·jya·n a·l̥ta·re	The raja and the ra·ni rule the kingdom
	etc.	
na·yiglu	ra·jya·n a·l̥ya·vu	Dogs may rule the kingdom (contingent, neut., pl)

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a) $N\char94 mf\char94 pl$ $\longrightarrow$ $\begin{cases} Nc \\ N\char94 \begin{bmatrix} m \\ f \end{bmatrix}\char94 pl \end{cases}$

b) $N \begin{bmatrix} m \\ f \end{bmatrix}_i$ $\longrightarrow$ $N \begin{bmatrix} m \\ f \end{bmatrix}_i$ $\quad 1,2,3$

c) $N\char94 n$ $\longrightarrow$ $\begin{cases} N\char94 n_1 \\ N\char94 n_2 \end{cases}$

The plural masc-fem nouns are divided into those which

have a singular ($N\char94\left\{\begin{smallmatrix} m \\ f \end{smallmatrix}\right\}\char94 pl$) and those which don't (Nc).

Both masculine and femine nouns are sub-divided into

three classes according to the plural allomorphs they take.

Neuter nouns have two subclasses.

$$\begin{matrix} V \\ \begin{bmatrix} t \\ in \end{bmatrix}_i \end{matrix} \quad \longrightarrow \quad \begin{matrix} V \\ \begin{bmatrix} t \\ in \end{bmatrix}_i \end{matrix} \quad 1,2$$

Verbs, transitive and intransitive are subdivided into two classes according to the masculine past allomorphs they select. This expansion is required for the later morphophonemic rule Tob 50.

a) Nu˄<u>k</u> ----→ $\left\{\begin{array}{l}\langle \text{nu·r + lakṣa}\rangle\ \langle\text{+ nu·r 1}\ \langle\text{+ sa·vra}\\ \left.\begin{array}{l}\text{ond}\\ \text{er\=id}\end{array}\right\}^{\wedge}\underline{k}\qquad\qquad\qquad \langle\text{+ nu·r 2}\rangle\rangle\rangle\end{array}\right.$

b) nu·r 2 ----→ $\langle \text{nu}^{\wedge}\text{nu·r}\rangle\ \langle\text{+ nu·r 1}\rangle$

c) nu·r 1 ----→ $\langle\langle \text{nu}^{\wedge}\rangle\ \langle\text{hatt}\rangle\rangle\ \langle\text{+ nu}\rangle$

Underlined elements to be taken or left out together.

All adjectives (K 11) may take a k; numerals are an exception. But vondu and yer\=idu take k's.

Three rules generate numerals from 1 to 99,999,999.
lakṣa is a million, sa·vra a thousand, nu·rua hundred,
hattu ten; nur 1 gives numbers from 1 to 99; nur 2, from
1 to 999.

nu·r + lakṣa + nu^hatt + nu + sa·vraṭ + nu^nu·r + nu·r +

$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ hatt + nu =

nu·r[1] lakṣad[2] tombattond[3] sa·virad[4] enṭ[5] nu·r[6] muvvatt[7]

$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ eraḍu[8]

nu hatt+nu = (ombattu+hattu+ondu) = tombattondu 91
nu nu·r   = (enṭu+nu·ru)   = enṭ nu·ru   800
nu hatt   = (mu·ru+hattu)   = muvvattu   30

hundred[1] million,[2] ninety one[3] thousand,[4] eight[5] hundred[6]
and thirty[7] two[8]

Chapter Two

Optional Transformations

Symbols and Conventions

$\Longrightarrow$ indicates a transformation rule as against an expansion (or 'constituent-structure') rule.

IS   is the 'embedded' sentence in a Double Base Transformation

IIS   is the 'embedding' or 'matrix' sentence

Top   is an optional transformation where both sides are perfectly grammatical sentences. They imply no necessary 'equivalence' in structure, though they may. be equivalent in some way.

Tob   is an obligatory transformation where the left-hand side is an un-Kannada sentence generated by some earlier rule. The right-hand side is a grammatical sentence.

Symbols like NP, VP, etc. include not only Nominal and Verbal pieces generated by the kernel rules, but all the nominal and verbal phrases that may be generated in this or later sections also. In other words, except where indicated, there is no hierarchy of rules. Rules written in the later parts of this chapter for convenience may operate on earlier ones. For instance, NP in the first rule might either be A from kernel rule 11, or $VB^\wedge æ^\wedge Pr_1^\wedge k$ from the nominalization rule Top 12.

Sometimes this is noted by enclosing all nominal phrases
by 2···2 and adjectival phrases by 1···1 as they tend
to be 'boxed' one within another. It will be indicated
in the relevant places in the notes to the rules.

$\neq$, denoting non-contrastive or stylistic variation in
order is not shown here as the input sentences will
carry this information; concord-restrictions are not
usually noted for the same reason.

The other symbols are as in the previous chapter.

This chapter will include a few single-base Top's and
Tob's that are found immediately relevant to the out-
puts of the double-based ones. But they are separated
out for reference in an appendix.

Sources for the inputs are given briefly at the top right-
hand corner of the page. Only the numbers of immediately
relevant rules are suggested. Where any sentence can
reasonably be an input, no references are given (as in
Top 1).

Source: K. 3,4,7,8,10

$$
\left\{
\begin{array}{l}
\text{IS} \quad NP_i\char`^k + NP_j\char`^k\char`^ \begin{bmatrix} al \\ g \\ an \end{bmatrix}_a \quad + VB\char`^ \quad \left. \begin{bmatrix} \left. \begin{matrix} d \\ ut \end{matrix} \right\} \char`^k_{i} \\ \langle l\rangle illa \\ B \\ Neg \end{bmatrix} \right\}_c \\[4ex]
\text{IIS} \quad X + \begin{bmatrix} NP_i\char`^k \\ NP_j\char`^k \end{bmatrix}_b \char`^z + Y
\end{array}
\right\} ====\!\!\Rightarrow
$$

$$
X + 21 \begin{bmatrix} NP_j\char`^k & \begin{bmatrix} al \\ g \\ an \end{bmatrix}_a \\ NP_i\char`^k \end{bmatrix}_b \char`^z + VB\char`^ \begin{bmatrix} a \\ o\cdot \\ ad \\ \\ B \; \cdot g \; \cdot \\ \\ Neg \char`^ ad \end{bmatrix}_c \quad 1 +
$$

$$
\begin{bmatrix} NP_i \; k \\ NP_j \; k \end{bmatrix}_b \quad 2 + Y
$$
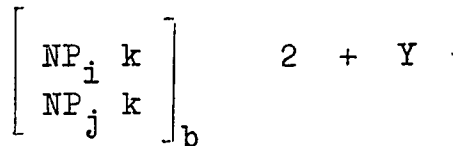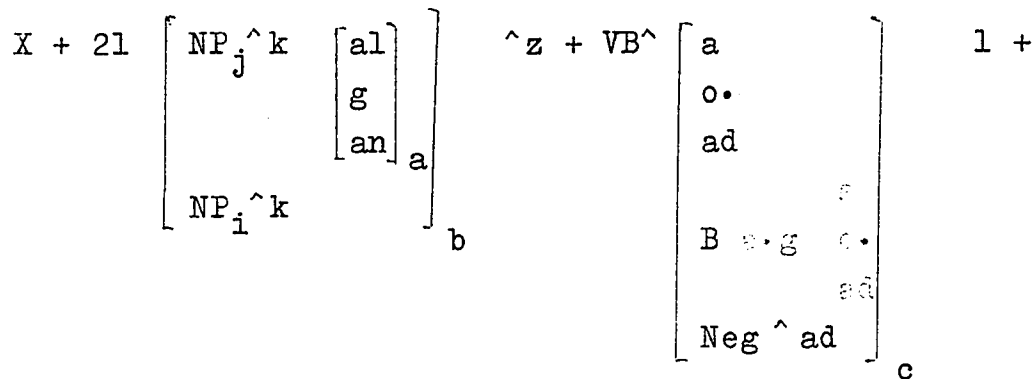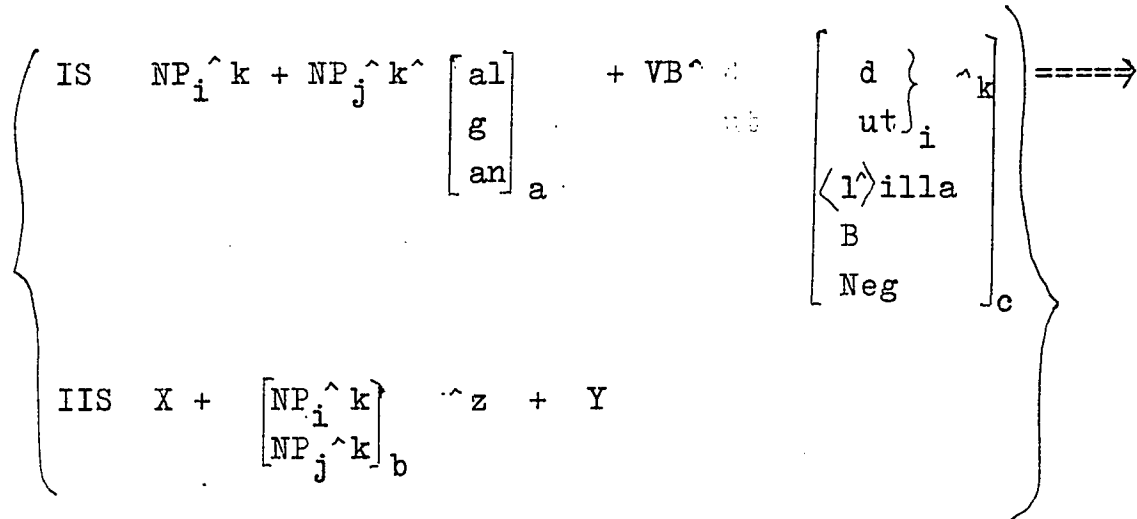
VB is any Verb Phrase which ends in the Vb of K. 4,
taking the endings listed above in the IS. These
endings in the order given above (the order being
relevant to the choice of endings in the output) will
be denoted by E in later Top's. We do not use Vb
at this point just to signify that VB here can be
more complex than the Vb of the kernel.

```
Neg  =  illa        not
         ku·dd       shouldn't
         ba·rd       ought not


B    =  be·k        want
         be·da       don't want
         bahd        might
         sa·k        enough
```

This rule derives adjectival participles (1...1) and
nominal phrases (2...2) by a double base transformation.
al, g, an are locative, dative and accusative endings.
d, ut are past and present tense-endings, l illa is
the past negative. z in IIS is any bound form follow-
ing the NP's. Neg = la·r^k, illa, ku·dd, ba·rd, as
listed. In the output, VP_i gets three participial
endings (dropping concord with NP) corresponding to past,
present and negative in IS. The modified noun in IIS
may be either the NP_i or the NP_j of IS. In the output
NP_j keeps the case-endings; the following example will
make both nominalization patterns clear. In the example
z is an, the accusative.

$$
\text{IS} \quad \text{ra·ma}^1 \ \ \text{ra·vnan}^2 \ \ \text{konda}^3 \quad (\text{Rama}^1 \ \text{killed}^3 \ \text{Ra·vana}^2)
$$
$$
\text{IIS} \quad \text{avlu}^4 \ \begin{Bmatrix} \text{ra·ma} \\ \text{ra·vna} \end{Bmatrix} \text{an}^5 \ \text{henti}^6 \quad (\text{She}^4 \ \text{is} \ \begin{Bmatrix} \text{Ra·ma's} \\ \text{Ra·vana's} \end{Bmatrix}^5 \text{wife}^6)
$$

$$
\Longrightarrow \quad \text{avlu}^4 \ \begin{Bmatrix} \text{ra·vnan}^2 \ \text{kond}^7 \ \text{ra·man}^{5a} \\ \text{ra·ma}^1 \ \text{kond}^8 \ \text{ra·vnan}^{5b} \end{Bmatrix} \ \text{henti}^6
$$

$$
(\text{She}^1 \ (\text{is}) \ \text{the wife}^6 \ \text{of} \ \begin{Bmatrix} \text{Ra·ma}^{5a} \ \text{who killed}^7 \ \text{Ra·vana} \\ \text{Ra·vana}^{5b} \ \text{whom}^8 \ \text{Rama}^1 \ \text{killed}^8 \end{Bmatrix})
$$

A later Top (10) indicates that the NP's may be replaced
by a Pr_1 with the same number-gender, thus nominalizing

the verb itself. This will yield phrases like "Ra·vanan
kondavnu" "Rama kondavnu" ("He who killed Ra·vana,"
"He whom Rama killed").

$$X + VB\widehat{\ }\begin{bmatrix} a \\ o\cdot \\ ad \end{bmatrix} + NP\widehat{\ }k\widehat{\ }a + Adj_K + \cdot\cdot Y \qquad =====$$

$$X \ / \ VB\widehat{\ }\begin{bmatrix} a \\ o\cdot \\ ad \end{bmatrix} / \ NP\widehat{\ }k\widehat{\ }a \ / \ Adj_K \qquad = \cdot\cdot Y$$

When after repeated embeddings of adjectival phrases,
different kinds of adjectivals are strung together: adjecti-
val participles (Top 1), genitive NP's (K. 11), and adjec-
tives listed in the kernel (denoted here by Adj_K). When
they do so they are in co-ordination, modifying the same head
NP; they may then be marked by a / juncture.

Further order-restrictions are found elsewhere (Top 6,
Tob 10).

Examples are in the next page. The + junctures would yield
ambiguous utterances.

maysu·rnalliro·[1] kri̱s̱nappi̱n[2] mu·rne·[3] maga[4]
the third[3] son[4] of the Krishnappa[2] who lives in Mysore·[1]

If /maysu·rnalliro/ modifies /maga/ and not /kri̱s̱nappa/,

yielding 'Krishnappa's third son who lives in Mysore',

both the constructions and the signalling junctures will

be different:

e·g·   maysu·rnalliro· / kri̱s̱nappi̱n mu·rne· maga

Kri̱s̱nappi̱n mu·rne· maga has a different derivational

history being derived from kernel 11· This entire NP

will be modified by maysu·rnalliro·, an adjectival

participle derived from Top 1·

$$\text{IS} \qquad NP_i{}^\wedge k + VB_i{}^\wedge k \; \bigg\rangle \quad =\!=\!=\!=\!\Rightarrow$$

$$\text{IIS} \qquad NP_j{}^\wedge k + \begin{bmatrix} VP_j{}^\wedge k \\ NP_j{}^\wedge k \end{bmatrix}_\iota \Bigg)$$

$$\left\{ \begin{array}{l} NP_i{}^\wedge k + VB_i{}^\wedge \begin{bmatrix} a \\ o \cdot \\ ad \end{bmatrix}_i {}^\wedge \begin{bmatrix} \text{Post-po}_a \\ \text{Post-po}_{o\cdot} \\ \text{Post-po}_{ad} \end{bmatrix}_i \quad + NP_j{}^\wedge k + \begin{bmatrix} VP_k{}^\wedge k \\ NP_j{}^\wedge k \end{bmatrix}_\iota \\[3em] NP_i{}^\wedge k + VB_i{}^\wedge k \; / \; NP_j{}^\wedge k \; {}^\wedge u\cdot \; + \; VP_j{}^\wedge k \end{array} \right.$$

E denotes the set of endings taken by VB, as in Top 1;
as noted earlier, the order of this set corresponds to
the order of the participial endings with subscript i.

One way of conjoining two sentences is by certain post-
positions following the adjectival participles of the
first verb, yielding phrases like ma·dɨd me·le 'after
having done'. This is shown in the first line of the
right hand side. The second way is to place the two
sentences in sequential order with a / juncture between
them.

ˈavɨn ho·da / ni·n u· ho·gu·   He went, you (also) go.

This is shown in the second line of the right hand side.

Certain post-positions select among the adjectival
participles in regard to tense; the negative has a few
post-positions that can go with it. Cf. also Post-
positions that go with NP cases, under Adverb, for
selection in regard to cases. The list of post-positions
follows.

This would generate high-frequency expressions of the
conditional, like: avnidre (avnu = NP + idda = VP^i^re)
'if he is there', avna·dre (avnu + a·da^re) 'if it were
he', when the post-positional suffix re is added to
verb phrases with iru, a·gu as the single verb, as the
above examples show; or as the second verb of a verb-
conjunction:

avnu ma·didre (avnu + ma·d^i + ir^da^re = NP + VB^i +
    VB^a^re)   if he has done (it).

The a·dre may follow any nominalization:

avnu ma·do·da·dre (avnu + ma·do·^adu + a·dre = NP +
    VB^o·^ Pr$_1$^ n + a·dre)
'if he would do it' (if his doing would happen').

i) Post-po$_a$ ----→

hort	unless
taksṇa	as soon as
me·le	after
re	if
ha·ge$_1$	as if
a·ga	when
ha·ge$_3$	as, like

ii) Post-po$_o.$ ----→

modal	before
badal	instead of
tanka	till
a·ga	when
ha·ge$_1$	so that
ha·ge$_2$	as if
ha·ge$_3$	like

iii) Post-po$_{ad}$ ----→ ha·ge$_1$ so that

Source: Top 2

Tob $X + \text{hort}_i + NP_j{}^{\wedge}k_2 + VP_j{}^{\wedge}k_2$ =====⟹

$X + \text{hort} + NP_j{}^{\wedge}k_2 + VB_j{}^{\wedge} \begin{cases} \text{Neg} \\ \text{Pr}_1{}^{\wedge}n{}^{\wedge}\text{illa} \end{cases}$

The post-position hort ('unless') takes only negative
verbs in IS or illa (the negative suffix) added to the
verbal noun (VB$_j$ Pr$_1$ n).

avnu + ma·ḍɨd + hort + na·n + ho·gti·ni[5]   =====⟹
avnu[1] + ma·ḍɨd[2] + hort[3] + na·n[4] + ho·gla·re[6]
ho·go·d illa[7]

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$$\text{Unless}^3 \text{ he}^1 \text{ did (it)}^2 \text{ I}^4 \quad \text{will not go}^7$$
$$\text{cannot go}^6$$
$$((I) \text{ will go}^5)$$

Note that a bound form re has been included among the Post-po$_{da}$; all the others may occur freely elsewhere.

Note also the three ha·ge homonyms, meaning 'so that', 'like' and 'as if'. This homonymy was set up to avoid ambiguity in sentence 2 below:

1. yi· kelsa^1 ago·^{2} ha·g^3 na·n^4 ma·dti·ni^5
    I^4 will do it^5 so that^3 this work^1 is done^2

2. avn^1 ma·do·^{2} ha·g^3 ni·n ma·du
    Do it^4 so^3 that he^1 does it^2

    Do it as^3 he does it

    Do it as if^3 he does it

The unambiguous examples for the three uses of ha·ge will make this clear:

avn^1 kalyo·^{2} ha·g^3 nin he·1kodu^4
avn^1 ha·do·^{2} ha·g^3 elru·^{4} ha·do·ka·ga·tye^5
avn^1 sa·ytiro·^{2} ha·ge^3 ni·n natsu^4

Teach him^4 so that^3 he^1 learns.^{2}
Can^5 everyone^4 sing^5 as^3 he^1 sings?^{2}
Pretend^5 as if^3 he^1 is dying.^{2}

The three ha·ge-homonyms have different selectional

possibilities as shown by their listings above; a sentence

like:

   ^{x}avn ma·dɨd ha·ge$_1$ na·n ma·dɨsti·ni
   I will do it so that he did it

is ungrammatical. The ambiguity in sentence 2 above

can be cleared only by substitution and by assigning

the intonation patterns to the sentence which will

differentiate all three meanings, in any actual utterance.

This is one of those cases where only a statement of

lexical privileges and of intonation will clear up the

ambiguity.

No lexical restrictions on VB_i and VP_j, the two partici-

pating verbs, have been placed here.

$$\text{IS} \quad X + R + VB_i\char`\^\begin{bmatrix} a \\ o\cdot \\ adj \end{bmatrix}_i + S + Y$$

$$\text{IIS} \quad P + yi\cdot + \left\{\begin{matrix} sangti \\ visya \\ \cdots \end{matrix}\right\} \quad \char`\^z + Q$$

$$=====\!\!\Rightarrow$$

$$P + 2(S + R + VB_i\char`\^\begin{bmatrix} a \\ o\cdot \\ adj \end{bmatrix}_i \quad \char`\^d \quad 2)\char`\^z + Q$$

In IS, R and S are the items that flank the verb-phrase
in the Nominalization Top output.

In IIS, P and Q are any permissible items that may
flank a noun-phrase like yi. sangti ("this news, this
affair, this act"). z is any bound affix. In the out-
put 2...2 gives a NP. du is the neuter verb-suffix;
here it gives the sense of "the act of ...", yielding
an abstract noun phrase. In this last respect is this
Top set apart from the previous one. This fact gives
the nominalized phrase different substitution-privileges.

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avḷu[1] / mane·l[2] irla·rad[3] heṇti[4] ante[5]

It seems[5] she[1] is a wife[4] who cannot stay[3] at home.[2]

nange[1] yi· sangti[2] voplilla[3]

To me[1] this fact[2] wasn't agreeable.[3]

nange[1] heṇti[2] mane·l[3] irla·raddu[4] / voplilla[5]

To me,[1] the wife[2] not being[4] at home,[3] wasn't agreeable.[5]

      (the fact that the wife was not at home)

This Top resolves the ambiguity of homonymous strings like:

From 20: a) yi· kelsa[1] ra·ma ⎰ma·ḍo· kelsa [2]
                               ⎱ma·ḍo·du   (cf Top 10)

        This work[1] is Rama's (work).[2]

From 24: b) yi· kelsa·n[1] ra·ma ma·ḍo·du[2] volle·du[3]

        Rama doing[2] this work[1] is good.[3]

           ('is a good thing')

5a)　IS　$NP_i\hat{\ }k_1$　$+$　$VB_i\hat{\ }\begin{bmatrix} d \\ \underset{\bullet}{ut} \end{bmatrix}_a$　$\hat{\ }k$

$\quad$ IIS $\quad NP_j\hat{\ }k_2$ $\quad + \quad \begin{bmatrix} VP_i\hat{\ }k \\ VP_j\hat{\ }k_2 \end{bmatrix}_b$ $\qquad\Bigg\} \quad ====\!\!\Rightarrow$

$$\begin{bmatrix} NP_i\hat{\ }k_1\hat{\ }a \\ NP_i\hat{\ }k_1 + VB_i\hat{\ }\begin{bmatrix} a \\ o\bullet \end{bmatrix}_a \end{bmatrix}_b \quad + ha\bullet ge_3 + NP_j\hat{\ }k_2 + VP_i\hat{\ }k_2$$

Comparison is a special case of the adjectival participle with ha·ge· as Post-position (cf· Top 1, and note)· But this has been treated as separately here because this Top has special features not covered by Top 1· If this were to be included in the latter, as it can conceivably be, it would complicate Top 1 monstrously, without any gain in economy, generality or intelligibility·

5a) conjoins two sentences a) that have the same VP lexically, and b) that have any two VP's, the VB in IS being restricted to present and past tenses, while the VP in IIS can include the contingent also (cf· example)· ha·ge can join IS and IIS, i) if the VB_i has in the past or the present adjectival-participial ending, ii) if the

VB_i is deleted and NP_i takes a genitive ending. When both have the same VP, then NP_i k_1 a or genitive of NP_i k_1 can take the place of IS, as shown by square bracket b.

pika·so[1] peyŋṭ ma·ḍḍa[2] ⎫
yivɨn[3] baṭṭe[4] ha·ḵḵoŋḍidda[5] ⎬   ====⟹

pika·so[1] peyŋṭ ma·ḍɨd[2] ha·ge[2a] yivɨn[3] baṭṭe[4] ha·ḵḵoŋḍidda[5]

Picasso[1] painted.[2]   ⎫
He[3] was wearing[5] clothes.[4]   ⎬   ====⟹

He[3] was wearing[5] (his) clothes[4] as[2a] Picasso[1] painted.[2]

   ('as in Picasso's painting')

pika·so peyŋṭ ma·ḍḍa ⎫   ====⟹   pika·so.[1] ha·ge[2] yivɨn[3]
ivɨn peyŋṭ ma·ḍḍa   ⎬   peyŋṭ ma·ḍḍa[4]

He[3] painted[4] like[2] Picasso.[1]

5b)   IS $NP_i\,\hat{}\,k_1$ $+ NP\hat{}k\hat{}an + VB_i\hat{}\begin{bmatrix} d \\ ut \end{bmatrix}_i$ $\hat{}\,k$ $\Bigg\}$ $====\!\Rightarrow$

   IIS $NP_j\,\hat{}\,k_2$ $+ NP\hat{}k\hat{}an + VP_i\,\hat{}\,k$

   $NP_i\,\hat{}\,k_1$ $+ NP\hat{}k\hat{}an$ $+ VB_i\hat{}\begin{bmatrix} a \\ o\cdot \end{bmatrix}_i$ $+ ha\cdot ge_3 +$

   $NP_j\,\hat{}\,k_2$ $+ NP\hat{}k\hat{}an$ $+ VP_i\,\hat{}\,k_2$

5b) permits the deletion of the object if both IS and
IIS have the same objects for the verbs in them.

$kittu^1$ $cendinn^2$ $esda^3$ $\Big\}$ $====\!\Rightarrow$
$ra\cdot ju^4$ $cendinn^2$ $esi\cdot lilla^5$

$Kittu^1$ $yesid^6$ $ha\cdot g^7$ $Ra\cdot ju^4$ $(cendinn)^2$ $yesi\cdot lilla^5$

$Kittu^1$ $threw^3$ the $ball^2$ $\Big\}$ $====\!\Rightarrow$
$Ra\cdot ju^4$ didn't $throw^5$ the $ball^2$

$Ra\cdot ju^4$ didn't $throw^5$ (the $ball)^2$ as^7 $Kittu^1$ $threw^6$ (the
   ball)

5c)   Top $NP_i \char"5E k_1 \char"5E a$ + ha·ge + $NP_j \char"5E k_2$ + $VP_i \char"5E k_2$ ====⟹

$NP_i \char"5E k_1 \char"5E a$ + ha·ge + $NP_j \char"5E k_2$

(K_1 may or may not agree with k_2 here·)

5c) is a Top deleting the verb in IIS, yielding verb-less comparisons; 'tande· ha·ge maga' (<u>like</u> <u>father</u>, <u>like</u> <u>son</u>)· The two NP's may or may not agree·

tande·[1] ha·g[2] maga[3] nadi·ta·ne[4]   ====⟹
tande·[1] ha·g[2] maga[3]

The son[3] walks[4] like[2] the father[3]   ====⟹
Father[1] like[2] son[3]
(Like father, like son)

5d) I S $NP_i\hat{\ }k$ + $VB_i\hat{\ }$ $\begin{bmatrix} be\cdot k \\ \{ku\cdot \d{q}d\} \\ [ba\cdot rd] \end{bmatrix}_i$ $\Bigg\}$ $====\!\!\Rightarrow$

   II S $NP_i\hat{\ }k$ + $VP_j\hat{\ }k$

$NP_i\hat{\ }k$ + $VB_i\hat{\ }$ $\begin{bmatrix} o\cdot \\ ada \end{bmatrix}_i$ + $ha\cdot ge_1$ + $NP_j\hat{\ }k$ + $VP_j\hat{\ }k$

5d) treats of sentences with non-identical verbs in IS
and IIS. They are joined by ha·ge (so that), if VB_i
has be·ku (must) / ba·rdu (mustn't). ha·ge, is as in
the Post-positions listed on p. 44 .

In these rules, where the tense is unspecified as d,
 ut, etc., any tense can occur.

na·n[1] ho·g ba·rdu[2] $\Big\}$ $====\!\!\Rightarrow$
avin[3] nan[4] tadida[5]

na·n[1] ho·gad[6] ha·g[7] avin[3] nan[4] tadida[5]

I[1] mustn't go[2] $\Big\}$ $====\!\!\Rightarrow$
He[3] prevented[5] me[4]

He[3] prevented[5] me[4] so that[7] I[1] couldn't go.[6]
('He prevented me from going')

6a)　IS　　$NP_i \hat{} k + Mod_j \{\hat{+}\} X_i$

　　IIS　$NP_j \hat{} k + Mod_j \{\hat{+}\} X_j$

$=====$

$NP_i \hat{} k + NP_j \ k \hat{} g \hat{} inta \hat{} lu \cdot + Mod\{\hat{+}\} X_i$

Mod stands for Ndes (List 25)
　　　　　　　　ad　　(13)
　　　　　　　　adv_3 (12)

When two sentences have the modifier-item one may compare
the two NP's with regard to the modifier as shown by the
above Top. The modifier may be followed by any permissible
bound or free item; if it is an adverb the following item
will be a verb, if an adjective of the ad-type, it may carry
a bound k or be followed by a NP. Ndes,descriptive nouns
may either be followed by a NP or occur predicatively. The
concord of the embedding sentence, here IS, is kept.

　　　yi· mane doḍḍɨdu
　　　avɨn hoṭṭe doḍḍɨdu
　　　　　　$====\Rightarrow$

avɨn[1] hoṭṭe[2] yi· mane[3]gintlu· doḍḍɨdu[4]　　　(Mod = ad k)
His[1] stomach[2] is bigger than[4] this house[3]

　　　avɨn may bisya·g ide
　　　benki bisya·g ide
　　　　　　$====\Rightarrow$

avɨn may[1] benki[2]ginta bisya·g[3] ide[4]　　　(Mod = adv)
His body[1] is [4] hotter than[3] fire[2]

pika·so[1] ja·ṇa[2]   }   ====⟹

nan[3] maga[4] ja·ṇa[2] }

nan[3] maga[4] pika·soɣintlu·[5]tu·ja·ṇa[2]na[2]

Picasso[1] (is) a smart fellow[2] }

My[3] son[4] (is) a smart fellow[2] }   ====⟹

my[3] son[4] (is) a smart<u>er</u> fellow[2] <u>than</u>[5] even Picasso[1]

6b) IS $NP_i{}^{\wedge}k + NP_j{}^{\wedge}k{}^{\wedge}g{}^{\wedge}inta\langle{}^{\wedge}lu.\rangle + Mod + X_i$ ⎫

    IIS $NP_j{}^{\wedge}k + NP_n{}^{\wedge}k{}^{\wedge}g{}^{\wedge}inta\langle{}^{\wedge}lu.\rangle + Mod + X_j$ ⎬ ====>

$$NP_i\ k + \begin{Bmatrix} NP_j{}^{\wedge}k + \begin{Bmatrix} NP_n{}^{\wedge}k + era\d{d} \\ ella \end{Bmatrix}{}^{\wedge}k{}^{\wedge}g{}^{\wedge}inta\langle{}^{\wedge}lu.\rangle \\ ella \\[2mm] Pr_i{}^{\wedge}mf{}^{\wedge}pl{}^{\wedge}alli + ella \end{Bmatrix} +$$

$$Mod + X_i$$

This rule deals with comparison among more than two ('superlative degree') with reference to the same modifier.   As in Top 6a, the concord of the embedding sentence is kept.

On the right hand side of the Top, the first line means 'of the two NP's, $NP_j{}^{\wedge}k$ and $NP_n{}^{\wedge}k$,' the second line 'of all', the third line, 'among them all'.   Instead of yeri̯du 'two', other numerals can be used if there are more NP's specified in the comparison; but their generation involves counting the number of NP's, and so is not part of a grammar.   For era̯d^k and ella^k, cf. lists 9, 11.   The unsubscribed k's signify lack of concord;   but usually, the elements

compared are in concord, though not necessarily.

nanginta^5 nan maga^2 ja·ṇa^3 =====⟶

pika·so^4 nanmagangintlu·^{5} ja·ṇa^3

pika·so^4 nammibbïrgintlu·^{5} ja·ṇa^3

My son^2 (is) smarter than^5 I^1 =====⟶

Picasso^4 (is) smarter than^5 my son^2

Picasso^4 (is) smarter than^5 both of us^6

$$\text{IS} \quad NP_i{}^\wedge k + VB^\wedge \begin{bmatrix} \text{la·r }^\wedge k \\ \text{lilla} \\ \left.\begin{matrix} d \\ ut \end{matrix}\right\}{}^\wedge k \end{bmatrix}_i \quad \Bigg\} \quad ====\!\!\Rightarrow$$

$$\text{IIS} \quad NP_i{}^\wedge k + VP_j{}^\wedge k$$

$$NP_i{}^\wedge k + VB^\wedge \begin{bmatrix} \text{la·r}^\wedge \text{de} \\ \text{de} \\ \text{i} \\ \text{ta·} \end{bmatrix}_i \quad \left\{\begin{matrix} / \\ + \end{matrix}\right\} \quad VP_j \ k$$
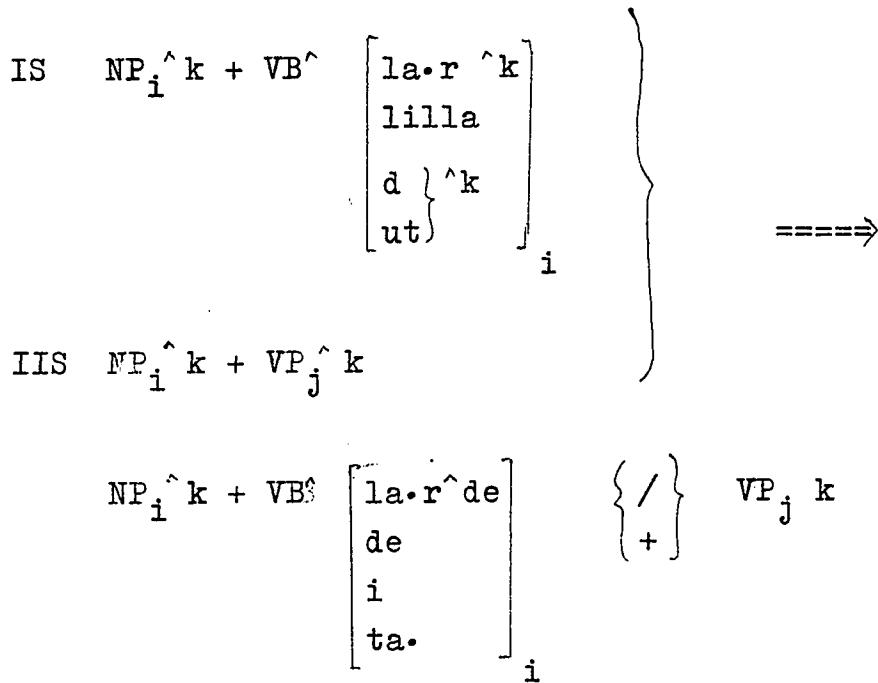
If IS has a VP with la·r^k (k being concord with $NP_i{}^\wedge k$, cf. Tob 22
p·135), or d and ut (past and present), and IIS
shares the subject $NP_i{}^\wedge k$ with IS, then we may derive
adverbial participles. VP in IS, drops its la·r^k and
lilla, d, ut, and takes on de, i, and ta· which are the
negative, past and present adverbial participles re-
spectively, corresponding to the items in square brackets
with the i-subscript in IS.   la·r^k means "couldn't,"
and lilla "didn't."

No concord restrictions are given here, as the input
sentences will automatically carry them. Both / and +
junctures are possible here.   58

avɨn[1] ha·ḍta·ne[2]
avɨn[3] bʰikṣa[4] be·ḍḍa[5] } =====⟹

avnu[1] ha·ḍta·[2] bʰikṣa[4] be·ḍḍa[5]

He[1] sings[2]
He[3] begged[5] for alms[6] } =====⟹

Singing,[2] he begged[5] for alms.[4]

The collocations of 2 and 5 are not restricted as all
sorts of unlikely-seeming collocations turn up in the
language.

avɨn[1] sattu[2] badɨkda[3]   He,[1] having died,[2] lived.[3]
avɨn[1] badɨkde[2] satta[3]   He[1] died,[3] not having lived.[2]
                               ('without having lived'[2])

$$\left.\begin{array}{ll} \text{IS} & (X + Y1 + Z) \\ \text{IIS} & (X + Y2 + Z) \end{array}\right\} \quad ====\Rightarrow \quad X + Y1/Y2 + Z$$

If two instances (Y1 and Y2) of one symbol (Y) occur in two sentences of otherwise identical form-class memberships, the two instances may follow one another in the embedding sentence (X + Y + Z).

Examples for different values of Y are given below:

NP: avnu.[1] yivnu.[2] bandru[3] That-he[1] and this-he[2] came.[3]

VP: avnu[1] banda[2]/no·d̪da[3]/ho·da[4] He[1] came,[2] saw,[3] went.[4]

VB E: (Verb-phrase with participial or other permitted endings)

a) adverbial: avnu[1] had̪ta[2]/kuṇi·ta.[3]/tamit̪e bad̪i·ta.[4] banda[5]

Singing,[2] dancing,[3] drum-beating,[4] he[1] came.[5]

b) adjectival: mu·le·1 ku·tid[1]/tale·neritid[2] mudika[3] nam ta·ta[4]

The old man[3] whose head had grayed[2] who was sitting in the corner[1] (was) my grandpa.[4]

T_q: hatvarṣid hinde[1]/ondina[2]/madhya·na[3]/ond gaṇte·li[4]··

  ten years ago,[1] one day,[2] in the afternoon,[3] at

  one o'clock.[4]··

Post-po: adɨr hinde[1]/ munde[2]/oḷige[3]/horɨge[4]/huḍuka·ḍda.[5]

  He searched[5] behind it,[1] before it,[2] inside it,[3]

  outside it.[4]

The intonation usually required is indicated by the
/ junctures after each Y. The subtler intonational differ-
ences are yet to be studied.

9a)   (S)

$$NP\hat{\ }k \neq ad\pm n \neq VP_X\hat{\ }k \Bigg\}$$

=====

$$NP\hat{\ }k \neq S\hat{\ }anta \neq VP_X\hat{\ }k$$

Where IS is any S (entence) in Kannada, and VP_X is a small list given below.

$$VP_X \quad \longrightarrow$$

bari	write
he·l	say
ke·l	ask
ann	say
...	

This rule yields instances of repeated speech.   anta (a fossilized) present participle of annu 'to say' is the quotative morpheme. $VP_X\hat{\ }k$ in IIS is usually a small set of words like helu 'say', ke·lu 'ask', annu 'say', etc.; but all sorts of other verbs like a·scaryapatta 'was surprised', atta 'wept', manas ma·dda 'made up his mind' are quite frequently found after the quotative construction. The latter are derived by the next transformation, by the deletion of 'he·li' in the verb phrase he·li + $VP\hat{\ }k$ with any VP as the second verb.

avnu[1] henti·n[2] hodda[3]
nange[5] adɨn[8] avɨl[6] he·lɨdlu[7] } =====>

avnu[1] henti·n[2] hodda[3] anta[4] nange[5] avɨl[6] he·lɨdlu[7]

'That[4] he[1] beat[3] the wife[2] she[6] told[7] me.[5]'

(adɨn[8] = that thing (acc.))

9b)   NP^k ≠ S^anta + he·li + VP^k   ====⟹

S^anta ≠ NP^k ≠ VP^k

Where S can be any sentence, and VP k any verb.

anta + he·li has the idiomatic force of "because of,
following the example of+ in addition to the quotative
sense; so does 'anta'.

henti·n[2] avnu[1] hodda[3]nta   he·li [4] yivnu.[5] henti·n[6] hodda[7]

Because[3] that fellow[1] beat[3] his wife[2] this fellow[5] also[5]
      beat[7] his wife.[6]

'anta + he·li' may be roughly translated as "saying that"
but signifies "following the example of, just because."

9c) i) $NP\hat{~}k \neq (NP\hat{~}k_1 + VP\hat{~}k_1)\hat{~}anta + he\cdot\underset{.}{l}\hat{~}k$ $====\!\!\Rightarrow$

$NP\hat{~}k \neq NP\hat{~}k_1 \neq VB\hat{~}a\hat{~}he\cdot\underset{.}{l}\hat{~}k$

ii) $NP\hat{~}k \neq NP\hat{~}k_1 + bar\hat{~}o\cdot\hat{~}ha\cdot ge + ma\cdot\underset{.}{d}\hat{~}k$ $====\!\!\Rightarrow$

$NP\hat{~}k \neq NP\hat{~}k_1 + bara\hat{~}ma\cdot\underset{.}{d}\hat{~}k$

$VP\hat{~}a\hat{~}VP\hat{~}k$ is more common in writing style than in spoken.
But in the colloquial we have phrases like

$$avin^1 \qquad bara^2 \qquad he\cdot\underset{.}{l}da^3$$
$$ma\cdot\underset{.}{d}a$$
$$tara$$
$$\cdots$$

(He)   asked[3] him[1] to come[2]
        asked him to do
        asked him to bring

and frequent but unproductive ones like barama·$\underset{.}{d}$da
'made him come.'

These are generated above.

baro·[1] ha·ge[2] he$\underset{.}{i}$lda[3]   'asked (him)[3] so as to[2] come[1]'
is also idiomatic, generated elsewhere(Top 3, cf. p. 45).

9d)   X + VP $\widehat{?}$ anta + $\left.\begin{array}{l}\text{ke·l} \\ \text{he·l}\end{array}\right]$ ^{k} $====\Rightarrow$

X + VB$\widehat{}\left\{\begin{array}{l}a \\ o· \\ ada\end{array}\right\}$ $\widehat{}$ Pr$_1$ $\widehat{}$ n $\widehat{}$ an   + $\left.\begin{array}{l}\text{ke·l} \\ \text{he·l}\end{array}\right]$ $\widehat{}$ k

In the Direct Report sentence as generated by Top 9a,
we may nominalize the entire reported sentence IS in Top,
by nominalizing its verb-phrase with a neuter ending
which will give it the force of an abstraction. This
seems to be restricted in selection to verbs like he·lu,
ke·lu 'say', 'hear'.   an is the accusative suffix that
will render the nominalized part an object of he·lu or
ke·lu.

avnu[1] henti·n[2] hodda[3] nta ke·lde[4] $====\Rightarrow$
avnu[1] henti·n[2] hoddadd an [3a] ke·lde[4]

I heard[4] $\left\{\begin{array}{l}\text{of his} \\ \text{him}\end{array}\right\}$ beating[3a] his wife[2]

The English sentence has two different senses according
as 'of' is inserted or removed. In Kannada the accusative
 an is just optional; the sentence may mean ambiguously
both 'heard' and 'heard of', because 'ke·lu' may mean both
lexically, and will take the same object. But in the anta
pattern, the sentence will mean only "I heard that he beat
his wife."   66

$$X \neq \begin{bmatrix} NP\hat{\ }k \\ adv_2 \\ N_{loc} \\ ad \\ Q \\ T_q \end{bmatrix}_i \begin{Bmatrix} \hat{\ } \\ + \end{Bmatrix} \quad Y + Z \quad ----- \quad X + Pr_{123}\hat{\ } \begin{bmatrix} k \\ ge \\ lli \\ ntha \\ st \\ ga \end{bmatrix}_i \begin{Bmatrix} \hat{\ } \\ + \end{Bmatrix} Y + Z$$

$$Q \text{ is } \begin{cases} vond + \begin{cases} solpa \\ konca \end{cases} \\ adv_1 \\ Nu\ 1 \\ Nu\ +Nco \end{cases} \quad \begin{array}{l} \text{a few} \\ \text{a little} \\ \text{a lot, much } etc \\ \text{some, etc.} \\ \text{numerals + counter nouns} \end{array}$$

This Top yields various pro-forms. Noun Phrases, Adverbs, Locational nouns, Adjectives, Quantifiers, and Time Phrases may respectively be replaced by Pr_{123}, suffixed to k, ge, lli, ṣṭu, ntha, ga, yielding proximate, remote and interrogative forms meaning

$$\left.\begin{array}{l} \text{this} \\ \text{that} \\ \text{which} \end{array}\right\} \hat{\ } \left\{\begin{array}{l} \text{he, she, it, or they} \\ \quad\text{manner} \\ \quad\text{place} \\ \quad\text{kind} \\ \quad\text{quantity} \\ \quad\text{time} \end{array}\right.$$

in that order.

na·n[1] ma·ne·na[2] hat sa·vrak[3] nenne[4] ma·rde[5]

====⇒ avnu[1a] yiddanna[2a] yesṭɨk[3a] ya·va·g[4a] marda?[6a]

I[1] sold[5] the house[2] yesterday[4] for ten thousand[3]

====⇒ When[4a] (and) for how much[3a] did[6] he[1a] sell[6]
this?[2a]

1a, 2a,···are substitutes for 1,2,···

A note may be added here regarding common hesitation-
substitutes like English What-do-you-call-it when one
is lost for an appropriate word. In Kannada they are
usually Pr_2 k, ge, etc· according as it is an NP, or
adv etc· that's intended, i·e·, the proximate yi form·

nenne[1] yivnu[2] bandidda[3]
yesterday[1] this man[2] had come[3]

Forms like "ye·no·[1] anta·r̃alla,[3] adɨkke[4]" "They say[2]
something[1] for that,[4] don't they[3]?" are also frequent·
As here, cases(kke, etc·) are added to them (here adu,
"it") as if they are regular nouns·

$$X \; + \; Pr_3\hat{\;}x \; + \; Y \; \Longrightarrow \; X \; + \; Pr_3\hat{\;}x\hat{\;}o\cdot \; + \; Y$$

x being the pro-form endings of Top 10.

In the case of $Pr_3\hat{\;}x$, an 'indefinitizer' particle o.
may be added. The resultant corresponds to 'someone,
somehow, somewhere' in English, transforming the
interrogative function of Pr_3.

ya·ro·	someone
yell‡go·	somewhere
ya·r‡go·	to someone
yesto·	an indefinitely large quantity or number
ya·va·glo·	at some time

$Pr_3\hat{\;}x\hat{\;}o\cdot$ is incompatible with negative verbs, as seen
in a later Tob (16).

$$X + P + Y \implies X + P \begin{Bmatrix} {}^{\wedge}e. & + \\ {}^{\wedge}u. & \\ be.re & \\ ku.da & \\ ma.tra & \end{Bmatrix} Y$$

also
also
nothing but, only, etc.

Where P is a cover symbol for the following:

1.	S^anta	Reported utterance S	Top 9
2.	NP	Any noun phrase	
3.	NP^/g	NP dative	K. 10
	inda	ablative	K. 10
	al	locative	K. 10
	ann	accusative	K. 3
4.	Pr$_{123}$^X	Pro-forms	Top 10
5.	Adv (including Post-positions, etc.)		K. 8, Top 3
6.	Vb	Verb stem as in K. 5,	

$$VB \begin{Bmatrix} de & \text{as in Top 7} \\ i & \\ ta. & \end{Bmatrix}$$

(adverbial participles)

e. and u. are exclusive ('only, himself, herself' etc.) and
inclusive ('also, even') emphatics. Their distribution
is as listed above. We could have scattered this infor-
mation in the source-rules (as in Top 6), but we chose
to put all the possible environments in one rule; this
also saves a few Tob's.

Examples:

1. avnu^1 satta^2 antlu.^{3} suddi^4 bantu^5

   The news^4 came^5 saying-also (that)^3 he^1 died^2

2. maysu·rge·$\}^1$ sarkas^2 bantu^3
   maysu·rgu·$]$

   The circus^2 came^3 $\{$to Mysore itself ^{1}
   $\qquad\qquad\qquad$ $($even to Mysore

3. avɨn^1 baro·dɨkku·^{2} modle·ne·^{3} mane^4 murɨdbittu^5

   Even before^3 his^1 coming (itself)^2 the house^4
   $\qquad$ broke down^5

4. avɨn magɨne·^{2} yivnu·nu·^{3}

   This fellow (is) also^3 certainly his son^2

5. ya·re·^{1} bandru·^{2} yint^{h}a^3 kelsa^4 ma·ḍo·dilla^5

   Whoever^1 may come^2 (I) won't do^5 this sort of^3 job^4
   $\qquad$ (cf· later note)

6. avɨn^1 barle·^{2} illa^3

   He^1 didn't^3 come at all^2

7. avɨn^1 he·ḷde·ne·^{2} maysu·rɨg^3 ho·da^4

   He^1 went^4 to Mysore^3 without even telling (us)^2

8. yivɨn^1 ma·tra$)^2$ a· kelsa^3 ma·ḍda^4
   $\qquad\quad$ ku·ḍa $\}$
   $\qquad\quad$ be·re $)$

   He^1 alone$^2)$ did^4 that job^3
   $\qquad$ too $\}$
   $\qquad$ also $)$
   $\hfill$ 71

Note on Pr_3 x   emphasis
('whoever, no one, anyone,'
etc.)

Like $Pr_3\hat{~}$x o. in Top 11, $Pr_3\hat{~}$x$\hat{~}$e. undergoes a semantic
shift, yielding forms somewhat like the English 'whoever,
whenever, etc.,' and consequently has restricted dis-
tributions (cf. Tob 15).

ye·ne·		whatever	may come
ya·re·	bandru···	whoever	
yeste·		however much	
···			

Pr_3 x u. would yield counterparts of the English 'no one,
never, etc.', compatible in Kannada with negative verbs,
usually (cf. Tob 15).

ya·ru·		no one	came
ye·nu·	barlilla	nothing	
ya·va·glu·		(It) never	

With Vb$\hat{~}$b^{h}o.du ('may···'), however, they have the sense
of 'anyone, anything, anytime··', though this usage
is somewhat rare.

ya·ru·	barb^{h}o·du	anybody may come
ya·va·glu·		(You) may come anytime

Other restrictions are to be found in the Tob's Chapter.

Source: K. 1,2,3

$$\text{NP}_i\hat{\ }k + \text{NP}_j\hat{\ }k \quad \text{====}\Rightarrow \quad \left.\begin{matrix}\text{NP}_i\hat{\ }k\\ \text{NP}_j\hat{\ }k\end{matrix}\right]_i + \left[\begin{matrix}\text{NP}_j\hat{\ }k\\ \text{NP}_i g + \text{Be·k}\end{matrix}\right]_i \hat{\ }\langle a.{}^o g\hat{\ }E\rangle$$

Be·k is a symbol for

be·k	needed
be·d	not needed
sa·k	enough
sa·ld	not enough

E is the symbol for the verb-endings in kernel 4.

In the equational sentence either NP (without alla – cf· K· 3)
may be replaced by be·ku, be·da, sa·ku, etc· and all of
these may be followed by a·gu ('to become') with E, i·e·,
any of the usual verb-endings as in kernel 4.

$$adu^1 \ mane^3 \ \text{====}\Rightarrow$$

| adu^1 mane^3 | be·ku 2 | That^1 The house^3 | (is) needed not needed enough isn't enough |
| adu^1 | sa·ka·glilla 2 sa·ka·gb^h o·du | That^1 | wasn't enough 2 might be enough |

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This also means that a·gu with all the verb-endings may be added to any equational sentence.

$$\text{avnu}^1 \begin{cases} \text{profesaru}^2 \\ \text{doḍḍavnu}^4 \\ \text{tamma}^5 \end{cases} ====\Rightarrow \quad \text{avnu}^1 \begin{cases} \text{profesara·da}^{2\,3} \\ \text{doḍḍavna}^4\text{da}^3 \\ \text{tamma·gbe·ku}^{5\,6} \end{cases}$$

He^1 became^3 professor^2

He^1 became^4 big^3

He^1 should be reckoned^6 my brother^5
    (He is my brother)

a·gbe·ku 'must become' has an idiomatic sense of 'to be reckoned,' 'is':

$$\text{avnu}^1 + \left.\begin{array}{c} \text{nan} \\ \text{nan±g} \end{array}\right\}^2 + \text{tamma·gbe·ku}^4$$

$$\begin{cases} \text{He}^1 \text{ (is)}^4 \text{ my}^2 \text{ brother}^4 \\ \text{He}^1 \text{ is to be reckoned}^4 \text{ my}^2 \text{ brother}^4 \end{cases}$$

The above Top, with the Top 7, would yield NP + a·gi -type of adverbial phrases:

IS $NP_i{}^{\wedge}k + VP_i{}^{\wedge}k$

IIS $NP_j{}^{\wedge}k + NP_j{}^{\wedge}k^{\wedge}a·g^{\wedge}k$ $\Bigg\}$ $====\Rightarrow$

                       $NP_i{}^{\wedge}k + NP_j{}^{\wedge}k^{\wedge}a·gi + VP^{\wedge}k$

avnu^1 be·ḷ±da^2

avnu^1 b^{h}u·ta·ka·rva·da$^{4\,3}$ $\Bigg\}$ $====\Rightarrow$

                 avnu^1 b^{h}u·ta·ka·rva·gi^3 beḷ±da^2

$$\left. \begin{array}{l} \text{He}^1 \quad \text{grew}^2 \\ \text{He}^1 \text{ became}^3 \text{ demon-size}^4 \end{array} \right\} \Rightarrow \quad \text{He}^1 \text{ grew}^2 \text{ to demon-size}^3$$

Proverbial sayings (written in the citation-form) like $\text{g\d{i}dava \cdot gi}^1$ $\text{baggaddu}^2 \text{ marava \cdot gi}^3 \text{ baggi \cdot te}^4$? 'What did not bend^2 as a sapling^2, will it bend^4 as a tree^3? can be derived from the terminal strings of the following types of Top's:

$$\left. \begin{array}{ll} \text{IS} & NP_i \hat{\ } k + NP_p \hat{\ } k + a \cdot gi + VP_i \hat{\ } illa \\[2mm] \text{IIS} & NP_i \hat{\ } k + NP_q \hat{\ } k + a \cdot gi + VP_i \hat{\ } k \hat{\ } e \cdot \end{array} \right\} \quad ====\Rightarrow$$

$$2 \; (NP_p \hat{\ } k \hat{\ } a \cdot gi + VP_i \hat{\ } ad \hat{\ } Pr\textsubscript{}) \; 2 + NP_q \hat{\ } k \hat{\ } a \cdot gi + VP_i \hat{\ } k \hat{\ } e \cdot$$

The 2···2 which is a nominal phrase is derived by Top 1 and pronominalized by Top 10, and becomes the subject of the sentence on the right hand side.

$$NP\hat{\ }k \;+\; VP\hat{\ }k \quad ===\!\!=\!\!\Rightarrow \quad VP\hat{\ }k$$

In many sentences the subject NP k can be optionally
omitted, and is, frequently. As seen in kernel 3, the
object too can be omitted, so that only the verb often
remains, especially in running discourse where the
subject and object are obvious, or previously specified.

⟨ na·n [1]⟩⟨yi· kelsa [2]⟩ ma·dle?[3]
    Shall[3] I[1] do[3] ⟨this job⟩[2]?

These sentences are not felt as response-sentences or
truncated sentences as they would often be in English.
But mere subjects or objects would be felt as sentence-
fragments (and maybe derived, if needed, by a Top as
the one above).

$$NP\hat{\ }k\begin{bmatrix}g\\al\end{bmatrix}_i + \begin{bmatrix}Nu\\Nu_1\\Pr_{123}\hat{\ }\underset{\cdot\cdot}{st}\end{bmatrix}_j \quad + \quad NP\hat{\ }k \quad + \quad i^o r \quad \wedge \quad \underset{q}{\hat{\ }}\hat{\ }k \quad ====\!\!>$$

$$NP\hat{\ }k\begin{bmatrix}g\\al\end{bmatrix}_i + \begin{bmatrix}Nu\\Nu_1\\Pr_{123}\hat{\ }\underset{\cdot\cdot}{st}\end{bmatrix}_j \quad + \quad NP\hat{\ }k$$

Frequently, an NP$\hat{\ }$k will stand for a sentence if preceded
by a quantifier, and an NP with the dative or locative, and
if the verb is iru 'to be'.

aving[1] yest[2] maklu[3]?
For him[1] how many[2] children[3]?

vondu·rnall[1] ob[2] ra·ja[3]
In a town[1] a[2] king.[3]

a)   Top   X + NP^n^an + Y =====> X + NP^n + Y

With neuter nominals the accusative ending is optional.

na·nu[1] a· bili·[2] hasu?n[3] no·dde[4]
I[1] saw[4] that white[2] cow.[3]

b)   Top   X^n^pl + N^n^pl =====> X^n^pl + N^n

X being either VP or NP.

The plural on the N n's are optional, and most often
omitted.

a· vu·ral[1] nu·r[2] mane[3] yittu[4]
In that town[1] were[4] a hundred[2] houses.[3]

$$\left.\begin{array}{l} \text{Nu} \\ \text{Nu}_1 \\ \text{ond} \\ \text{er\i{}d} \end{array}\right]_i \hat{}k + \text{NP}\hat{}k + X \quad ====\!\!\Rightarrow \quad \text{Pr}_3\hat{}k\hat{}o\cdot + \left.\begin{array}{l} \text{Nu} \\ \text{Nu}_1 \\ \text{ond} \\ \text{er\i{}d} \end{array}\right]_i \hat{}k + \text{NP}\hat{}k + X$$

Numeral and NP phrases may be preceded by the indefinitizing
$\text{Pr}_3\hat{}k\hat{}o\cdot$.   Note the concord between $\text{Pr}_3\hat{}k$, the k on the
Nu's and the NP. The concords for Nu_1, ond and yer\i{}d are
in Tob (8) and the lists (Nu).

ya·ro·[1] mu·r[2] heng\i{}sru[3] bandidru[4]
some[1] three[2] women[3] had come[4]

ya·vdo·[1] vond[2] ga·d\i{}[3] ho·ytu[4]
some[1] (one)[2] cart[3] went[4] (by)

a) $X + NP\hat{}k\hat{}an + VP_{tx}\hat{}k$ $=\!=\!=\!=\!\Rightarrow$

   $X + NP\hat{}k\hat{}an + NP\hat{}k\hat{}g + VP_{tx}\hat{}k$

Some verbs here designated VP_{tx} take double objects. The
second object is marked by the dative g. Below is a
sample list:

VP_{tx} stands for		
	baḍɨs	serve
	bar°i	write
	ha·k	put
	he·ḷ	say
	hacc	smear, paint
	hodɨs	cover (with sheet, etc.)
	koḍ	give
	ma·r	sell
	kuḍɨs	make someone drink
	mu·sɨs	make someone smell
	no·ḍɨs	make someone see
	tiḷɨs	make it known to someone
	to·rɨs	show
	...	

avɨnɨg[1] ka·gda[2] bari[3]	Write[3] the letter[2] to him.[1]
magu·g[1] ha·l[2] kuḍɨsu[3]	Make[3] the child[1] <u>drink</u>[3] milk.[2]
heṇti·g[1] suddi[2] tiḷɨsu[3]	Make[3] the news[2] <u>known</u>[3] to
	the wife.[1]

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b) $X + NP\hat{}k + VP_{inX}\hat{}k \implies X + NP\hat{}g + NP\hat{}k + VP_{inX}\hat{}k$

Some intransitive verbs are usually accompanied by a
noun in the dative g. Here is a sample list:

VP_{inX} stands for

ant	stick (to)
N a.°g	become N
he.s	flinch (from)
(yo.cne) holi	(thought) flash, occur (to)
ka.°yi	wait (for)
ka.nɨs	appear (to)
hedɨr	be afraid (of)
ogg	agree (with)
sig	be found (by)
to.r	occur (to)
to.c	occur (to)
...	

sʈaempu[1] kayg[2] antkontu[3]
The stamp[1] stuck[3] to the hand.[2]

avnu[1] pa.pak[2] hedɨrdavnu[3]
He[1] (is) one who is afraid[3] of sin.[2]

a) $NP\hat{\ }k + NP\hat{\ }k_j\hat{\ }an + VP_t\hat{\ }k$ $====\Rightarrow$ $NP\hat{\ }k_j\hat{\ }an + VP_t\hat{\ }n$

b) $NP\hat{\ }k + NP\hat{\ }n\hat{\ }an + VP_t\hat{\ }k$ $=====$ $NP\hat{\ }n + NP\hat{\ }n$

If a transitive verb is used in the neuter without the subject, it gets an impersonal 'passive' sense: somewhat as in English 'The book reads well' or 'The rain pours'. Top b) permits the use of a transitive verb as intransitive if the subject is neuter.

a) $\text{avnu}^1 \text{ mane}\cdot\text{n}^2 \text{ kaṭṭida}^3$ $====\Rightarrow$ $\text{mane}\cdot\text{n}^2 \text{ kaṭṭu}^4$
$\text{nenne}^5 \text{ ka}\cdot\text{gda}^6 \text{ barisde}^7$ $====\Rightarrow$ $\text{nenne}^5 \text{ ka}\cdot\text{gda}^6 \text{ baristu}^8$

$\text{He}^1 \text{ built}^3 \text{ the house}^2$ $====\Rightarrow$ $\text{The house}^2 \text{ was built}^4$
$\text{Yesterday}^5 \text{ I got}^7 \text{ a letter}^6 \text{ written}^7$ $====\Rightarrow$
$\text{Yesterday}^5 \text{ a letter}^6 \text{ got written}^8$

b) $\text{pustika}\cdot\text{n}^1 \text{ avin}^2 \text{ harda}^3$ $====\Rightarrow$ $\text{pustika}^4 \text{ hari}\cdot\text{tu}^5$
$\text{He}^2 \text{ tore}^3 \text{ the book}^1$ $====\Rightarrow$ $\text{the book}^4 \text{ got torn;}^5$
$\text{or, the book}^4 \text{ tore.}^5$

The two terminal strings often look alike, as the neuter objects need not carry the accusative an (Top 16). But as can easily be seen a subject can be inserted in the first but not in the second, where NP is the subject and not the object; note also the concord.

$$
\begin{array}{c}
\left.\begin{array}{c} \text{NP}^\wedge \text{k} \\ \text{na·n} \\ \text{na·v} \end{array}\right]_i
\quad + \quad
\text{Vb}^\wedge \left[\begin{array}{c} \text{li} \\ \text{ti·ni} \\ \text{o·ṇa} \end{array}\right]_i
\quad {}^\wedge \text{e·} \quad ====\!\!\Rightarrow
\end{array}
$$

$$
\left.\begin{array}{c} \text{NP}^\wedge \text{k} \\ \text{na·n} \\ \text{na·v} \end{array}\right]_i
\quad + \quad
\text{Vb}^\wedge \left\{\begin{array}{c} \text{o·ṇa} \\ \text{li} \end{array}\right\}
\quad {}^\wedge \text{e·}
$$

Kernel 4,17 assigns imperative verb-suffix li to III
person pronouns and to all other NP's, ti·ni and o·ṇa
to II person pronouns. When the question-marking clitics
e· and o· are added to the imperatives, o·ṇa and li
can be used interchangeably. o·ṇa, however, is rare
and has an old-fashioned flavor to it.

na·n[1] maysu·rɨg[2] ho·gle[3]?
Shall[3] I[1] go[3] to Mysore[2]?
(May I)

avɨr[1] yi· kelsa[2] ma·ḍo·ṇve[3]?
Should[3] he (pl.)[1] do[3] this job[2]?

Chapter Three

Obligatory Transformations

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Obligatory Transformations

A few general obligatory transformations (Tob) are
given here; they apply directly to the terminal strings
of the kernel grammar. They eliminate unacceptable
utterances and orders that are generated by the kernel
grammar.

Many of the less general Tob's are placed after lists
and particular Top's which they pre-suppose.

For anyone who would like to see all the Top's in one
place, they are gathered (with cross-references) in an
appendix. This scatter, like several other things in
this work, is made in the interests of readability,
we hope, without prejudice to the hierarchy of rules.

$\Longrightarrow$ indicates a transformation as opposed to an
expansion (or 'constituent-structure') rule.

Other conventions are as in earlier chapters.

$$S_1 {}^\wedge k \quad {}^\wedge voc {}^\wedge R \quad ====\!\!\Rightarrow \quad S_1 {}^\wedge k \quad {}^\wedge R \langle {}^\wedge voc \rangle$$

Where the vocative precedes the R(clitics), it is
shifted to the end after the R items, and rendered
optional.

avɨn ma·ɖda $\begin{cases} \text{alve?} \\ \text{alve·nri?} \end{cases}$ He did it, didn't he?
                                       He did it, didn't he, sir?

Gr ^ voc ^ R   =====   Gr^ { voc

 ... (R

Vocatives and clitics cannot co-occur when greeting
precede them. R here includes vocatives as a closure
feature.

namiska·ra[1] ri·[2]   Greetings[1] sir![2]
namiska·ra[1] alve·nri[2]   Greetings,[1] (isn't it so?) did
                                      you say?[2]

$$A \widehat{\ } k_j \widehat{\ } R \quad * \quad A \widehat{\ } k \widehat{\ } an \quad * \quad \left. \begin{array}{c} VP_t \widehat{\ } t_a \widehat{\ } Y \\ \end{array} \right]$$

$$A \widehat{\ } k_j \quad * \quad A \widehat{\ } k \widehat{\ } an \widehat{\ } R$$

$$A \widehat{\ } k_j \widehat{\ } R \quad * \quad VP_{in} \widehat{\ } t_a \widehat{\ } Y \qquad \Bigg]_i \qquad\qquad ====\!\!\Rightarrow$$

$$X \quad * \quad \left. \begin{array}{c} Vb_t \\ Vb_{in} \end{array} \right]_i \quad g_a \widehat{\ } n$$

$$ta \quad ----\!\!\rightarrow \quad \left. \begin{array}{c} d \\ ut \\ d \left.\begin{array}{c}\\ \end{array}\right\} \widehat{\ } illa \\ ut \end{array} \right]_j \qquad\qquad g_a \quad ----\!\!\rightarrow \quad \left. \begin{array}{c} a \\ o \cdot \\ ad \end{array} \right]_j$$

Where X on the right means all the items that precede
the VP on the left, and Y all the bound forms (tense-
markers, etc.) that may follow VP. g_a is any adjectival-
participial ending (Top 1): a, o., ad (past, present,
negative), corresponding to t_a on the left-hand side.
ta represents d, ut, $d \left.\begin{array}{c}\\ut\end{array}\right\} \widehat{\ } illa$ (past, present, negative).

The six possibilities of $X \langle * Y \rangle * W$ as generated by
kernel 1,2,3 are:

1.	X	$\langle + Y \rangle$	+	W	na·n[1]	mane·g[2] bande[3]
2.	$\langle Y + \rangle$	X	+	W	mane·g	na·n bande

3.	$\langle$Y	+$\rangle$	X	+	W	mane·g	bande	na·nu
4.	W	$\langle$+	Y$\rangle$	+	X	bande	mane·g	na·nu
5.	W	+	X	$\langle$+	Y$\rangle$	bande	na·nu	mane·ge
6.	X	+	W	$\langle$+	Y$\rangle$	na·n	bande	mane·ge

The three possibilities of $X\langle \ast Y\rangle \ast W ^{\wedge} Z$ are:

1.	X	$^{\wedge}$ Z	$\langle \ast$	Y$\rangle$	$\ast$	W
2.	X	$\langle \ast$	Y	$^{\wedge}$ Z$\rangle$	$\ast$	W

and 3.　X　$\langle \ast$　Y$\rangle$　$\ast$　W　$^{\wedge}$ Z

not expanding the $\ast$ symbol.

The compounded possibilities of $\ast$ and $^{\wedge}$ in kernel rules
2 and 3 generate some ungrammatical sequences like the ones
given on the left hand side of this rule. None of the
noun-phrases ($A^{\wedge}k$) can take a clitic R unless the verb
changes into an adjectival participle with a neuter
ending, $g_a{}^{\wedge}n$.

ra·ja[1] ra·ṇi·nalve[2] kondiddu?[3]　　　　　　(cf also Top 4)
Was it not the queen[2] that the king[1] killed?[3]

ra·ja alve[1] ra·ṇi·n[2] kondiddu?[3]
Was it not the king[1] who killed[3] the queen?[2]

For, ra·ja alve[1] ra·ṇi·n[2] kondavnu,[3] 'Was not the king[1] the
man who killed[3] the queen?[2]', cf· kernel 1 and 2 yielding an
equational sentence with the clitic, alve·

$$Pr_{123}\hat{}k \quad * \quad Pr_{123}\hat{}k \; \hat{}R \qquad ====\!\Rightarrow$$
$$X$$

$$\left(\begin{array}{l} Pr_3\hat{}k \quad \hat{} \left\{ \begin{array}{l} e.^2 \\ o.^2 \\ ri \end{array} \right\} \quad * \quad \left\{ \begin{array}{l} Pr_{12}\hat{}k \\ X \end{array} \right\} \\[3em] Pr_{12}\hat{}k \quad * \quad \left\{ \begin{array}{l} Pr_{12}\hat{}k \; \hat{}R \\ X \end{array} \right. \end{array} \right)$$

By kernel 1, R(clitics) can be attached to either part of
a bipartite sentence; kernel 2, 10, and 11 make adjectives
participate in this relation, and Pr_{123} are adjectives,
by kernel 11. X is any permissible item other than Pr_{123}.
Pr_{123} are the remote and proximate demonstratives, and
the interrogative respectively. This rule introduces
limitations on the clities that can occur with Pr_3, the
interrogative. Only the vocatives (masc, fem, mf plural)
o., e., ri can occur with the interrogative. Further
both parts of the equational sentence can't be interrogative
Pr_3.

*ya.vnu   avnalve.nri?   ====\!\Rightarrow

ya·viñri[2] avnu?[3]   Who,[1] sir,[2] is he?[3]

avnu[1] ivñalve·nri?[4]   Isn't[3] that-man[1] this-man,[2] sir?[4]

Unlikely sentences like, avnu[1] avnu[2] (he[1] is he[2]) are
produced by these (and other) rules but they are not
eliminated, as they are perfectly possible.

a) $i^o r\hat{\ } ut\hat{\ } illa$ $====\Rightarrow$ illa

b)   d $\langle C. \rangle$ $\hat{\ }$ l $\hat{\ }$ illa $====\Rightarrow$ d $\hat{\ }$ $\left\{ \begin{matrix} d \\ 1 \end{matrix} \right\}$ $\hat{\ }$ illa

     ut   o· $Pr_1\hat{\ }n\hat{\ }illa)$

                                           olla

a) The negative present of iru in K. 5 (expressing the
equivalent of English 'has') is illa.

b) The negative l$\hat{\ }$illa can take only the past tense.
The negative of the present is expressed by a neuter
verbal noun (Vb$\hat{\ }$o·$\hat{\ }$Pr$_1\hat{\ }$n) and illa; the negative of the
contingent by a 'compound' verb (ma·ḍɨde· ho·da·nu, 'he
might go without doing it'). The stem for negative l$\hat{\ }$illa
is the present stem; for illa the past (d illa).

avɨn[1] ma·ḍḷilla[2]   He[1] didn't do (it)[2]
avɨn[1] ma·ḍo·dilla[2]   He[1] isn't doing (it)[2]
         ma·ḍolla   won't do (it)

$$
\begin{bmatrix} \mathbf{F} \\ P \\ I \end{bmatrix}_i \begin{matrix} d\ C \\ ut \end{matrix} \cdots +X{^\wedge}t_q{^\wedge}k \implies \begin{bmatrix} F \\ P \\ I \end{bmatrix}_i + X^\wedge \begin{bmatrix} \begin{Bmatrix} ut \\ d{^\wedge}C \end{Bmatrix} \\ d \\ d\langle{^\wedge}C\rangle \\ ut \end{bmatrix}_i {^\wedge}k
$$
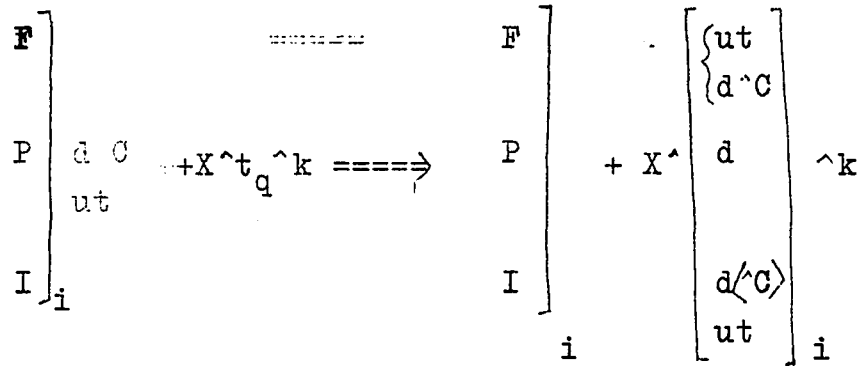
$X = Vb_{t,in}$ in kernel 4.

Kernel 6 subdivides time phrase T_q into F, P, I; the
present rule specifies the restrictions on them, in
terms of the $T_q \cdots t_q$ concord.

F occurs only with the past and the contingent, P only
with the past, I with past, present and contingent.

na·ḷe[1] barta·ne[2]   (He) comes[2] tomorrow[1]
na·ḷe   banda·nu[3]   (He) might come[3] tomorrow[1]

nenne[1] bande[2]   (I) came[2] yesterday[1]

ivat[1] banda[2]   (He) came[2] today[1]

ivat   barta·ne[3]   (He) comes[3] today

ivat   banda·nu[4]   (He) might come[4] today

P + ... X^ li   ====⟹   P + ... X^d^k

X is Vb in kernel 4.

F, P, I have no concord relations with Bahdu, Neg etc.
(cf. K. 4). But P is incompatible with an imperative
verb. This is eliminated by this rule.

*nenne barli   'Let him come yesterday'   =====⟹

     nenne[1] banda[2]   (he) came[2] yesterday[1]

$$
\begin{array}{l}
\left.\begin{array}{l}
Nu^{1} \\
Nu_{1} \\
ella \cdot
\end{array}\right]_{i} {}^{\wedge}k + Y^{\wedge}k \quad ====\!\!\Rightarrow \quad
\left.\left.\begin{array}{l}
Nu^{1} \\
Nu_{1} {}^{\wedge}\left[\begin{array}{l} mf \\ n \end{array}\right]^{\wedge}pl \\
ella \cdot \left[n \right]_{j}
\end{array}\right]_{i} + Y^{\wedge}\left[\begin{array}{l} mf \\ n \end{array}\right]^{\wedge}pl \right._{j}
\end{array}
$$

(cf. K. 2, 11, 12)

Nu^{1}, Nu_{1}, and ella· agree only with mf^pl and n^pl, having special forms for the epicene pl. (cf. p. 146). Nu^{1} is all the numerals except vondu and yeridu, as in K. 22. X may be a modified noun (K. 11) or a B^k as in K. 2.

$$
\begin{array}{lll}
{}^{*}hattu^{1} \; manisya^{2} & ====\!\!\Rightarrow & hattu^{1} \; manisru^{3} \\
{}^{*}Ten^{1} \; man^{2} & ====\!\!\Rightarrow & ten^{1} \; men^{3}
\end{array}
$$

a) $N \hat{} n_2 \hat{} \; pl + X \hat{} n \hat{} \; pl \quad ====\Rightarrow \quad N \hat{} n_2 \hat{} \; X \hat{} n$

     X being VP or NP.

b) $\left. \begin{array}{l} Nu \\ Nu_1 \end{array} \right]_i + N \hat{} n_2 + Z \quad ====\Rightarrow \quad \left. \begin{array}{l} Nu \\ Nu_1 \end{array} \right]_i + N_{co} \hat{} n + N \hat{} n_2 + Z$

$N \hat{} n$ is divided into N_1 and N_2 by kernel 20, the latter having no plurals (Tob a); if any numeral preceded it, it must be mediated by N_{co} or counters (Tob b).

* hatt akki   ====$\Rightarrow$ hat se·r akki
*ten rice   ====$\Rightarrow$ ten measures of rice (seer = a
                                             measure)

Other N's can also go with Nu and N_{co}, with facetious effects:

mu·r ʈan pa·ṇḍitya   three tons of learning

hat mora padya   ten winnowing-fans full of verse

Abstract nouns are not treated here as N_2 n 's or mass-nouns, though frequently they behave like mass nouns and

take counters as above or as in 'a bit of courage'. But
contexts may always be found for saying them without
counters like hat. pa·nditya 'ten (kinds of) learning',
instead of hat taraha pa·nditya 'ten kinds of learning;
though er*d d^{h}ayrya 'two courages' does seem a little odd.
A classification may perhaps be made among Kannada abstract
nouns as countable and non-countable, as obviously sarka·ra,
guṇa, yo·cne 'government, virtue, thought' are more
plausibly countable than ga·mb^{h}i·rya, voḷḷe·tana, naya
'dignity, goodness, delicacy'. The contrast available in
English between 'wine' and 'wines', 'delicacy' and
'delicacies' has no parallel in Kannada, as neuter nouns
are only optionally plural. But all abstract nouns can
take vondu 'one' in the sense of 'a certain...', or in
certain idiomatic usages like the following:

vuttaran pavri·ṣa vond pavri·ṣve?
That sissy's manhood (heroism), is it any manhood?

huḍ*gang ond d^{h}ayrya ide no·ḍi/ nambo·d asa·d^{h}ya
That boy has a certain courage, you see, (tis) hard to
    believe.

$$X + Adj + Adj + \cdots A + Y \Longrightarrow$$

$$\begin{cases} X + \left.\begin{matrix} Nu\hat{}ne \\ ad \end{matrix}\right]_i + \left.\begin{matrix} Nu\hat{}ne \\ ad \end{matrix}\right]_i + \cdots A + Y \\[3em] X + Pr_{123} + \begin{Bmatrix} Nu \\ Nu_1 \end{Bmatrix} + ad + N_{col} + A + Y \end{cases}$$

When the recursive rule re·attributives operates itera-
tively, the series generated is restricted to a) ad's
and Nu ne's and, b) to the other kinds of Adj's only if
each item is a different exponent of Adj -- that is, we
cannot have a series of Pr_1's or Nu's. Further, they
have to follow a certain order. The following is one
example:

$$X \quad \cdots \quad yi.^1 \quad mu\cdot ru^2 \quad dod^3 \quad haldi^4 \, mane^5 + Y$$
$$\text{these}^1 \quad \text{three}^2 \quad \text{big}^3 \quad \text{yellow}^4 \, \text{house(s)}^5 \cdots$$

Nu ne (the ordinal) is omitted because it is not possible
in Kannada to speak of "the three twentieth yellow houses"
as it is not in English. But we may speak of "the third
twentieth house" "mu·rne· ippatne· mane," which is
introduced by the first line of the right hand side.

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a) $X + NP_i \hat{}\begin{bmatrix} k_1 \\ k_2 \end{bmatrix}_j \langle ca \rangle + NP_j \hat{}\begin{bmatrix} k_3 \\ k_2 \end{bmatrix}_j \langle ca \rangle + Y\hat{}k \quad =\!=\!=\!=\!\Rightarrow$

$$NP_i \hat{}\begin{bmatrix} k_1 \\ k_2 \end{bmatrix}_j \hat{}\begin{bmatrix} \underline{u\cdot} \\ ca\ \underline{u\cdot} \end{bmatrix}_i + NP_j \hat{}\begin{bmatrix} k_3 \\ k_2 \end{bmatrix} \hat{}\begin{bmatrix} \underline{u\cdot} \\ ca\ \underline{u\cdot} \end{bmatrix}_i +$$

$$\left\langle \begin{bmatrix} ibb\dot{\imath}r \\ er\dot{\imath}d \end{bmatrix}_i \hat{} \begin{bmatrix} u\cdot \\ ca\hat{}u\cdot \end{bmatrix}_i + \right\rangle Y\hat{}\begin{bmatrix} mf\hat{}pl \\ n\ \hat{}\ pl \end{bmatrix}_i$$

Underlined u·'s are optional, but if one is chosen, all
underlined elements must be chosen.

ca is a case-ending.

k_1 being m,f,n^pl , k_2 being n^pl , k_3 being m,f^pl .

These two Tob's adjust the concords, etc. for the conjunction-
output for two NP's (Top 8). Where anyone has m,f or their
plurals, Y(being NP or VP) will carry mf pl; where both has
n or n^pl, Y will carry n^pl. If no Nu's modify the NP's,
yibbɨru('two people' 'both') in the former and yerɨḍu('two
things' 'both') may be inserted before the Y.

avnu.[1] yivḷu.[2] yibru.[3] vo·ḍɨho·dru[4]

He[1] (and) she[2] both[3] ran away[4]

(or, avnu[1] yivḷu[2] yibru.[3] vo·ḍɨho·dru[4])

If Numerals modify the NP's, we should have a sum of the
numbers mentioned, instead of yibbɨru('both') -- but there
seems to be (nor need be) no grammatical rule to state
the arithmetic of this.

b) $X \div NP_i\hat{\ }E + NP_j\hat{\ }E + NP_k\hat{\ }E + \cdots + Y\hat{\ }E \implies$

$$X + \cdots + \left.\begin{matrix} ell\dot{\imath}r \\ ella \end{matrix}\right]_i \hat{\ }E + Y\hat{\ }\left.\begin{matrix} mf\hat{\ }pl \\ n \hat{\ }pl \end{matrix}\right]_i$$

E denotes the endings and concords as in a). When more
than two NP's are conjoined yibbɨru is replaced by yellɨru
('all' mf), yerɨḍu by yella ('all' neuter).

raja·nu.[1] ra·ṇi·nu.[2] mantri·nu.[3] yella·ru.[4] sab^h e·g[5]
    bandru.[6]
or, ra·ja[1] ra·ṇi[2] mantri[3] mu·ru·jana*   bandru[6]
                              yella·m.[4]

The raja[1], the rani[2], the minister[3]; all of them[4] came[6]
    to the assembly.[7]

* 'all three people' cf. note above re. the arithmetic
of conjunctions.

a) $X + VB\hat{\ } \begin{bmatrix} a \\ o. \\ ad \end{bmatrix}_i \hat{\ } Pr_{123}\hat{\ }k$ $=====$ $X + \left\{ \begin{array}{l} VB\hat{\ } \begin{bmatrix} a \\ o. \\ ad \end{bmatrix}_i \hat{\ } Pr_1\hat{\ }k \\ \\ VB\hat{\ }\begin{bmatrix} a \\ o. \\ ad \end{bmatrix}_i / \ Pr_{12}\hat{\ }k \end{array} \right\}$

b) $X + 2 \ (VB_{in}\hat{\ } \begin{bmatrix} a \\ o \\ ad \end{bmatrix}_i \hat{\ } Pr_1\hat{\ }k) \ 2 + Y$ $====\!\!\Rightarrow$

$X + NP\hat{\ }k +(VB_{in}\hat{\ } \begin{bmatrix} a \\ o \\ ad \end{bmatrix}_i \hat{\ } Pr_1\hat{\ }k) + Y$

a) Any $NP\hat{\ }k$ may be replaced by a Pr_{123} of the same k, by Top 10.

a) When, by such a substitution, we get a verbal noun, only $Pr_1\hat{\ }k$ may be affixed, if $Pr_{12}\hat{\ }k$ is chosen, they are no longer affixed but free forms as indicated by junctures. The latter is emphatic; the construction is that of attribution, not nominalization.

b) When, by the above pronominalizing transformation, a verbal noun $VB\hat{\ }\begin{Bmatrix} a \\ o \\ ad \end{Bmatrix}\hat{\ }Pr_1\hat{\ }k$ appears, it may be in apposition with $NP\hat{\ }k$ that was replaced by the $Pr_1\hat{\ }k$ by Top 10. (cf. example 3 below).

1. nenne^1 ra·ma^2 banda^3 $====\!\!\Rightarrow$ nenne avɨn^4 banda Top 10

   yesterday^1 Rama^2 $\text{came}^3 ====\!\!\Rightarrow$ yesterday he^4 came

2. monne^1 ho·d^2 $\left.\begin{array}{c}\text{avnu}^3\\\text{ivnu}^4\end{array}\right]_i$ $====\!\!\Rightarrow$ $\begin{array}{c}\text{monne ho·davnu}^5\\\text{monne ho·d / } \left.\begin{array}{c}\text{avnu}^6\\\text{ivnu}^7\end{array}\right]_i\end{array}$ Tob 12a

   That-he^3 (who) went^2 the day before $\text{yesterday}^1 ====\!\!\Rightarrow$
   This-he^4

   $\left.\begin{array}{l}\text{That-man who went}\ldots^5\\\text{What particular man}^6\\\text{This particular man}^7\end{array}\right\}$ who went

3. $\left.\begin{array}{l}\text{ra·ma}^1 \text{ monne}^2 \text{ ho·da}^3\\\text{ra·ma } \text{ nenne}^4 \text{ banda}^5\end{array}\right\} ====\!\!\Rightarrow$ Tob 12b

   ra·ma,^1 monne^2 ho·davnu,^3 nenne^4 banda^5

   Ra·ma,^1 the he-who-went^3 the day before,^2 came^5

       yesterday.^4

$$X + Adj + Pr_{123}\char`^k + Y \ ====\!\!\Rightarrow \quad X + \left. \begin{matrix} ad \\ \text{Ñu}\char`^\text{ne} \end{matrix} \right\}\char`^Pr_1\char`^k + Y$$

The Pro-Nominalization Top 10 allows for the replacement
of all NP k by any Pr_{123} with the same k. This will
yield Adj + Pr_{123} k; Adj may be nominalized by affixing
Pr_1 k. In both these rules, NP^k means all nominals
(enclosed as 2···2, or expanded from A in kernel 11); and
Adj all adjectivals (enclosed as 1···1, or expanded in the
kernel); the example shows the nominalization of an
Adjectival phrase.

1. $NP\char`^k\char`^Pr_2$ $NP\char`^k\char`^$ an   VP^k $====\!\!\Rightarrow$

   ra·ma^1 yi·^{2} kelsa ·n ^{3}ma·ḍda^4

                        $Pr_1\char`^k$   $Pr_2\char`^k$ VP^k
                        avnu^5 yid an ^{6} ma·ḍda^7

   Ra·ma^1 did^4 this^2 work^3 He^5 did^7 this^6

2. $Pr_2\char`^k$           Adj         $Pr_1\char`^k$
   yidu^1 + ra·ma^2 ma·ḍid^3 + adu^4 $====\!\!\Rightarrow$

                    $Pr_2\char`^k$              $Adj\char`^Pr_1\char`^k$
                    yidu^5 + ra·ma^6 + ma·ḍiddu^7

   This^1 (is) Ra·ma^2 done^3 thing^4 This^5 (is) Ra·ma's^6 doing^7
                (This is Ra·ma-done-it)   104

$$\text{NP}^\wedge \text{k}^\wedge \begin{bmatrix} e\cdot \\ u\cdot \end{bmatrix}_i \left\{ + \text{NP}^\wedge \text{k}^\wedge \begin{bmatrix} e\cdot \\ u\cdot \end{bmatrix}_i \atop \text{Vb}^\wedge \begin{cases} \text{be}\cdot\text{re} \\ \text{ku}\cdot\text{da} \\ \text{ma}\cdot\text{tra} \end{cases}^\wedge{}^\times \right\} ====\Rightarrow \quad \text{NP}^\wedge \text{k}^\wedge \begin{bmatrix} e\cdot \\ u\cdot \end{bmatrix}_j \left\{ + \text{NP}^\wedge \text{k}\cdot \begin{bmatrix} u\cdot \\ e\cdot \end{bmatrix}_j \atop \text{Vb}^\wedge{}^\times \right\}$$

There seem to be many restrictions on the use of emphatics
in consecutive items of a sentence. But it seems gram-
matically possible to have several of them, though the
restrictions need further inquiry.

e.g.   avɨn[1] mane·g$\begin{cases} e\cdot \\ u\cdot \end{cases}$[2] nenne·$\begin{cases} e\cdot \\ u\cdot \end{cases}$[3] nan heṇdti·[4] jate·g$\begin{cases} e\cdot \\ u\cdot \end{cases}$[5]

ho·g$\begin{cases} e\cdot \\ u\cdot \end{cases}$[6] idde·[7]

(I) had $\begin{cases} \text{certainly} \\ \text{even} \end{cases}$ gone[6] $\begin{cases} \text{certainly} \\ \text{even} \end{cases}$ with[5] my wife[4]

$\begin{cases} \text{even} \\ \text{also} \end{cases}$ yesterday[3] $\begin{cases} \text{even} \\ \text{also} \end{cases}$ to his house.[2]

But the above rule offers one restriction that seems
grammatical. In a bi-partite sentence both nominal parts
cannot have the same emphatic.

ra·ma·nde·[1]   yi·mane·nu·[2]
ra·mandu·[3]   yi·mane·ne·[4]

This house too[2] (is) surely Rama's[1]
This house, surely[4] (is) Rama's also[3]

But not ra·mandu·^{3} yi·mane·nu^2 'this house also is Rama's also' though in English it looks passable.

One might say, in general, that more than one sort of emphatic particle is rarely used in succession in a sentence.

The second part of the rule eliminates the three post-positional emphatics after Vb, which is a symbol here for verb stem as in K. 5.

$$Pr_3\hat{\ }\begin{bmatrix} x\hat{\ }e\cdot \\ k\hat{\ }u\cdot \end{bmatrix}_i + X\hat{\ }k \quad ====\!\!\Longrightarrow$$

$$Pr_3\hat{\ }x\hat{\ }e\cdot + \begin{cases} Vb\hat{\ }li/ \\ Vb\hat{\ }E\hat{\ }ru\cdot \end{cases} + S$$

$$Pr_3\hat{\ }x\hat{\ }u\cdot + \begin{cases} Vb\hat{\ } Neg \\ b^h od\cdot \\ t_q \langle\hat{\ }l\rangle\hat{\ }illa \end{cases}$$

$Pr_3\hat{\ }x\hat{\ }e\cdot$ can only go with imperative Verb phrases or adverbial participles with re u. (Top 3,12) and non-final juncture /; the construction is followed by a full sentence S.

$$ya\cdot re\cdot^1 \begin{Bmatrix} barli \\ bandru\cdot \end{Bmatrix}^2 mane^3 kaṭḷe\cdot^4 be\cdot ku\cdot^5$$

Whoever[1] may come[2] (we) must[5] build[4] the house[3]

$Pr_3\hat{\ }x\hat{\ }u\cdot$, however, is compatible only with negatives (ba·rdu, ku·ḍdu 'shouldn't', etc·), the illa-type of negation (with tense t_q 'isn't, wasn't') and somewhat unusually with b^ho·du ('might'). Cf· note on page 72·

ya·ru·[1] kole[2] ma·ḍilla[3a]

　　　　　　ma·dba·rdu[3b]

ya·ru·[4] kole[2] ma·db^{h}o·du[5]

but not *ya·ru·[4] kole[2] ma·ḍta·re[6]

No one[1] $\begin{cases} \text{has committed}^{3a} \\ \text{should commit}^{3b} \end{cases}$ murder[2]　　(The negative in Kannada goes with the verb)

Anyone[4] might commit[5] murder[2]

but not *Anyone[4] commits[6] murder[2]

$$Pr_3\hat{}\,k\hat{}o\cdot \,+\, Vb\hat{}\begin{cases}Neg \\ t_q\hat{}\langle 1\rangle\hat{}illa\end{cases} \;=\!=\!=\!=\!\Rightarrow\; Pr_3\hat{}\,k\hat{}o\cdot \,+\, Vb\hat{}t_q\hat{}\,k$$

$Pr_3\hat{}\,k\hat{}o\cdot$ is incompatible with negative verbs. Other
pro-forms, yeṣṭu, ye·nu, he·ge, etc. may take negative
verbs.

*ya·ro·[1] barlilla[2]   ====⇒   ya·ro·[3] bandru[4]
someone[1] didn't come[2]   ====⇒ someone[3] came[4]

*ya·ro· barlilla, 'someone didn't come', can have rare
contexts - like 'someone didn't come, can you guess who?' -
with special intonation-features. But it is certainly
felt to be marginal, unlike:

yeṣṭo·[1] jana[2] barlilla[3]
So many[1] people[2] didn't come.

he·go·[1] jana[2] barlilla[3]
Somehow[1] people[2] didn't come.[3]

etc.

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Chapter Four

Descriptive Etymology

Note on Descriptive Etymology

This chapter will consist of two small "idiom-grammars":

    1) Compounds

    2) Reduplication

The section in the lists called Derivation (p. 181-182)
also belongs with these two 'idiom'-descriptions; it
also deals with word-composition, especially by the
addition of transformative affixes, which change items
from one sub-class to another (i.e., masculine to feminine)
or from one form-class to another (i.e., noun to verb).
But we placed it with the lists for convenience and con-
tinuity.

Representative information regarding the more productive
derivational or sub-syntactic units (called "idiom", like
the section "descriptive etymology" after F.W. Householder,[*]
1959) is outlined here.

The problem of compounds is an old and complicated one.
Here we sample only a few productive types, derived from
phrases previously generated.

As reduplication may be considered a special type of
compounding, reduplications of various form-classes and
the differences in grammatical usage are briefly indicated
and charted.
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[*] "On linguistic primes," Word, vol 15, 1959
  [*] "On linguistic primes," Word

Echo-morphemes (first called that by Emeneau) are a very
productive specialization of reduplication, and so placed
along with these rules. Doublets or rhyme-compounds where
both members are words in their own right (haḷḷakoḷḷa[2] =
pits[1] and dips,[2] meaning 'uneven terrain', etc.) are
dvandva-compounds with the rhyme-feature and taken care
of by the dvandva-compound derivation.(p. 116).

Top (21):   X + N^a + N + Y   =====>   X + N^N + Y

Top 21 derives endocentric compounds from endocentric
genitive phrases whose heads are the second members of
the phrase.

ka·l^a + baḻe   =====>   ka·lbaḻe

maḻe^a ⌉   maḻega·la ⌉
         + ḵa·la   =====>
bara^a ⌋ᵢ   baraga·la ⌋ᵢ

                                     'leg-bangle anklet'
                                     'rainy season' ⌉
                                     'time of famine'⌋ᵢ

The v under k is a morphophoneme, which (by later rule Top 37)
yields the voiced counterpart of the stop.

The contrast between a compound and a phrase is often marked
by morphophonemic factors as th: one just cited:

bari·^{1} ka·lu^2 mere^1 leg^2
bariga·lu   bare-foot
hosa·^{1} Kannaḍa^2 the new^1 Kannaḍa^2
hosigannaḍa   the New Kannada or modern Kannada
                                (a period in language-history)

Top (22): $(P\begin{Bmatrix}Nu \\ a\end{Bmatrix} + N_x\hat{\ }n)\hat{\ } a\hat{\ } Pr_1\hat{\ }\begin{bmatrix}m \\ f\end{bmatrix}_i$ $====\!\Rightarrow$

$\begin{Bmatrix}P \\ Nu\end{Bmatrix}\hat{\ } N_x\hat{\ }n\hat{\ }\begin{bmatrix}a \\ i\end{bmatrix}_i$

P is a cover symbol for:

N^n	neuter N's
Po	Post-positions like voḷage, horage, etc. ('inside, outside')
Vb^o.	Present Adjectival participles

Nu is usually the first three numbers

vondu	'one'
yerɨdu	'two'
mu·ru	'three'

Top 22 derives an agentive compound (masculine or feminine) from a **phr**ase with a genitive and an agentive; the latter is formed out of a neuter noun to which gender-markers are added via a genitive - e.g. "the big-nose-possessing man" etc. The second member N_x is usually a body-part, though not necessarily. For agentive-formations, see the Transformatives Section of next chapter (p. 181).

haṇe^a^ kaṇṇu^a^a^vnu $====\!\Rightarrow$ haṇegaṇṇa

The one with the eye in the forehead $====\!\Rightarrow$

haṇegaṇṇa (a name for Siva)   113

voḷage^a˘ ǩaṇṇu^a^a^vnu   ====⇒   voḷɨgaṇṇa

The one with the inside-eye   ====⇒   The inner-eye man

te·ḷ^o·˘ ǩaṇṇu^a^avnu   ====⇒   te·ḷɨgaṇṇa

The man with the eye that 'floats'   ====⇒   the floating-
                                             eyed-man

The restrictions on the first and second members are not
here worked out in any detail.

o°ndu˘ ǩaṇṇu^a^avḷu   ====⇒   okkaṇṇi

The woman with one eye ====⇒   the one-eyed-one (fem)

The morphophonemic rule for these three bound numerals may
be stated as follows:

Tob (16·1):   ond ⌉ ^ CX   ====⇒   o ⌉ ^ CCX   one
                 erɨd | i | two
                 mu·r ⌋ᵢ   mu ⌋ᵢ   three

The allomorphs are as in the square brackets on the right
hand side, with the first consonant of the second member
doubled:

vondu˘ kaṇṇu^a   ====⇒   ɣokkaṇṇu   'one-eyed-ness'
yerɨḍu^ bʰa·ga   ====⇒   yibbʰa·ga   'two parts'

(The loss of the aspiration on the first part of a geminate
cluster is automatic: cf.

mu·ru^ kaṇṇu^a   ====⇒   mukkaṇṇa   'three eyed one'

Cf. also Numerals (p. 141-142).

Top (23)   X + N^n^a^ant^{h}a + Nn + Y   ====$\Rightarrow$

        X + Nn^Nn + Y

This Top deals with the next type, where the first member
is N n with ant^{h}a ('like'). In the compound, all the
suffixed elements are dropped.

sakkaré a^ant^{h}a ꞵumbaḷa   ====$\Rightarrow$ sakkariꞙgumbḷa
'sugar-like gourd'   'sweet gourd'

kalli^a^ant^{h}a idlu   ====$\Rightarrow$ kallidlu
'stone-like coal'   'charcoal'

For ant^{h}a, cf. adjective list under ad.

This rule is given only to suggest that not all N^N
compounds are taken care of by the earlier Nn^a + N
phrases.

Top (24): $X + \begin{Bmatrix} N_1\hat{}k\hat{}u\cdot + N_2\hat{}k\hat{}u\cdot \\ N_1\hat{}k + N_2\hat{}k \end{Bmatrix} + Y \quad ====\!\!\Rightarrow$

$$X + N_1\hat{}k\hat{}N_2\hat{}k\hat{}pl + Y$$

Top 24 derives dvandva compounds from conjoined Noun
phrases (Tob 8). The compounds are always followed by
the plural ending (except in $N\hat{}n$, where the earlier rule
(Top 16b) permits the possibility of dropping it).

ka·ḷu^{1}ˆu· + kasa^{2}ˆu·	====⟩	ka·ḷu kasa
'grain^1 and dirt'^{2}	====⟩	'grain, etc.'
kayyi^{1}ˆu· + ka·l^{2}ˆu·	====⟩	kay ka·lu
'hand^1 and foot^2'	====⟩	'limbs'
aṇṇa^{1}ˆu· + tamma^{2}ˆu·	====⟩	aṇṇa tamma andru
'elder brother^1 and younger^2'	====⟩	
		'elder and younger brothers'

Usually an order is preserved; hence the subscript numbers
1 and 2. Really no linguistic reason can be given (like
the educated English preference for 'he' and 'I,' even
"the egg and I" etc.). Where two persons, mythological

or otherwise, are mentioned it is the older or the more
prestigious who is mentioned first as N_1. This is
usually the case in the phrases also, though not necessarily.

e.g.

b^hi.ma.rjuna ru	('B^{h}i.ma and Arjuna')
krisṇa.rjuna ru	('Krishna and Arjuna')
tande makka ḷu	(father and sons)
ra.ma ra.vaṇa ru	(Ra.ma and Ra.vaṇa, $===\Rightarrow$ .Epic Hero and Antagonist)

Compound compounds: many of the above rules can be iteratively applied to yield compounds like

$$(N^N)\ ^N\quad etc.$$

e.g.

    ra·malakṣmaṇara·vaṇa ru   (Compounds 4,
                                           iterated)
    'Rama, Lakṣmaṇa and Ra·vaṇa'

    (mun^dale) no·vu   (Compounds 1,2)
    'pain in the front of the head'

Top (25): $X + Y_1\hat{\ }x + Y_1\hat{\ }x + Z \quad ====\Rightarrow \quad X + Y_1\hat{\ }Y_1\hat{\ }x + Z$

Where $Y = adv_{123}$, ad, Post-positions, N, Pr_{123} x, Vb_1

  x   = any permitted suffix

Tob (17): $X + N\ p\hat{\ }N\ p\hat{\ }a + Y \quad ====\Rightarrow \quad X + N\ p\hat{\ }a + Y$

Where N p is a proper noun (cf. list).

Top 8 (Conjunction) provides for the appearance of one N
after another. This rule transforms the conjunction into
a reduplication.

When two adjoining elements are the same items, redupli-
cation occurs. Adj's, Adv's, Po_{12} have to be simplex
items, (not complex Adj or Adv-phrases) to be reduplicated.
This is indicated by the specification of adv_{123} and
A_1 etc. Except in the case of the verb, only the item
preceding the suffix (x) is reduplicated.

Tob 17. Proper nouns are not reduplicated sentence-
medially; they may, however, be reduplicated, when vocative
or exclamatory.

example: Ra·ma Ra·ma!   'How awful!'

             Śiva Śiva!   'My god!'

$$\left.\begin{array}{c}Pr_1\\2\\3\end{array}\right]_i \; {}^\wedge x {}^\wedge \left.\begin{array}{c}Pr_1\\2\\3\end{array}\right]_i \; {}^\wedge x \text{ forms have also special 'idiomatic'}$$

meanings:

avn avnu	each man by himself
avr avru (alli)	among themselves
a· ya·	respectively
aṣṭ aṣṭu	that much, each time; a little quantity, each time·
a·ga·ga	frequently, now and then
ha·gha·ge·	just as it was
all alli	here and there

Examples:

Pr_{123} x:	ya·rya·ru		"who all"	
	ya·ru	=	who	Distributive
N :	manmane·gu·		"to every house"	
	mane	=	house	Distributive
Adv :	be·ga be·ga		"very quickly"	
	be·ga	=	quickly	Intensive
Adj :	doḍ doḍḍa		"many big x's"	
	doḍḍa	=	big	Collective
	ma·ḍi·ma·ḍi		"having done again and again"	
	ma·ḍi	=	having done	Iterative
N :	huḍughuḍugu		"sheer boyishness"	
	huḍugu	=	boyishness	Intensive

Top (26): $X + Pr_1] \hat{} x \hat{} Pr_1] \hat{} x + Y \implies$.
$\qquad\qquad\quad {}_2]_i \qquad {}_2]_i$

$$X + Pr_1 \hat{} x \hat{} Pr_2 \hat{} x + Y$$

Tob (18): $X + Pr_1 \hat{} \begin{bmatrix} nt^h a \\ st \end{bmatrix}_i \hat{} Pr_2 \hat{} \begin{bmatrix} nt^h a \\ st \end{bmatrix}_i + Z \implies$

$$X + Pr_1 \hat{} \begin{bmatrix} nt^h a \\ st \end{bmatrix}_i \hat{} Pr_2 \hat{} \begin{bmatrix} nt^h a \\ st \end{bmatrix}_i + Z \begin{cases} +alla \\ \hat{} Neg \end{cases}$$

Forms with Pr_1 or Pr_2 prefixed can have a modified redu-
plication with $Pr_1 \hat{} x \hat{} Pr_2 \hat{} x$ as the resultant, with special
meanings:

e.g.   ha·ge hi·ge   anyhow
       avn ivnu, avr ivru   just anybody
       a·g i·ga   now and then
       alli·illi   in all sorts of places

Tob 18 limits $ant^h int^h a$ 'just any kind' and $astistu$ 'just
any quantity', etc. to negative (alla, be·ḍa, ba·rdu)
constructions.

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Tob (19): $X + Vb_1\hat{} x \hat{} Vb_1\hat{} x + Y \quad ====\!\!\rightarrow$

$$X + Vb_1\hat{} \left.t_q \hat{}k\atop{i\atop{de\atop{a\atop{ta\cdot}}}}\right]_i \hat{} Vb_1\hat{} \left.t_q \hat{}k\atop{i\atop{de\atop{a\atop{ta\cdot}}}}\right]_i + Y$$

Reduplication allows all Vb_1 verb forms to be reduplicated
whole; by this Tob, when the past adjectival a and the
present adverbial ta reduplicate, the first member may
drop the suffixes. Of all the permissible V-affixes
(a), only i a, i, ta, de enter into this reduplicative
relation. All the other suffixes, but those listed, are
deleted by this rule. The semantic developments are varied,
as illustrated by the following examples:

Participles:

    Adjectival (past)   ma·ḍma·ḍɨd ha·ge
                         as one goes on doing it
    Adverbial (past)   he·ḷi·he·ḷi·[1] sa·ka·ytu[2]
                         (I) had enough[2] of saying (it) again
                             and again[1]
    Adjectival (past)   band band[2] jana[1]
                         all[2] the people[1] who came,[2] whoever
                         came.

Adverbial (present) bar ta   barta

                   as it continues, as time passes (an 'idiom')

                   as he was coming (continuative)

Adverbial (past)   bandbandu

                   having come again and again

Adverbial (negative) barde·barde

                   as it continued not to come

Present: Ra·ma[1] barta·ne barta·ne[2] anta[3] ka·da[4]

       He waited[4] (thinking) that[3] Ra·ma will <u>probably</u> come.[2]

Imperative: ho·gu ho·gu↲

       go↲ go↲   (Intensive)

Past: ho·da[1]·ho·da·ho·da / kone·tanka[2] ho·da

       He went,[1] went, went / till the end[2] he-went

       'He went and went, till he reached the very end.'

Top (26.1):   X +   C V $\underline{\cdot}$ Z $^\wedge$ CV-Z + Y   ====$\Rightarrow$

X + CV-Z$^\wedge$gi $\underline{\cdot}$ Z + Y

Underlined optional forms are to be chosen or left out
together.

This rule generates the echo-forms of Kannaḍa. (As it
assumes phonemic shapes, this rule should probably come
after the lists, but it is placed here for continuity.)
If a form has CV or V initially, in the reduplicated form
the second member may replace CV by gi; if V is long,
by gi. Any item may be 'echoed' this way. The meaning
is usually 'X and all that', 'X and such rubbish' depending
on the context.

mane.gine.[1] kaṭgiṭṭi.ya.[2]
You may build[1] (etc.)[2] a house (etc.)[1]

"Beware, don't you dare build houses and such rubbish": the
contingent as well as the echo-forms re-inforces the
cautionary tone.

These echo-forms are most often used with the 'cautionary

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contingent', as above, or with the conditional verb
(ra·ma·gi·ma[1] bandgindre[2] 'if even that[2] Rama-fellow[1]
happens to come[2]'), or with the negative (bi·di·li[1]
ha·ḍgi·ḍ[2] he·ḷba·rdu[3] 'In the street[1] you shouldn't sing[3]
songs and such.[2]'). But as they occur with other verb
forms also (with intonation carrying the rest) we do not
restrict them:

      avɨn biḍi,[1] u·rgi·r[2] sutgitkoṇḍ[3] irta·ne[4]

      Let him be[1]: he will[4] be wandering[3] in some town

          or other.[2]

We have a few other echo-syllables as in

    ha·ḷuᵐu·ḷu   'rubbish[1] etc.'

    cu·ruᵖa·ru   'bits[1] and pieces'

but these are restricted tothese single (noun) forms almost.
The contrasts among these different types may be indicated
by three examples:

mane[1] ha·ḷha·ḷ[2] suri·tittu[3]   The house[1] was dripping[3]

                                  with desolation.[2]

mane[1] ha·ḷgi·ḷ[2] ma·ḍbe·ḍa[3]   Don't you[3] spoil and ruin[2]

                                  the house[1] (cautionary)

mane·l[1] ha·ḷu·mu·ḷu[2] biddittu[3]   In the house[1] lay[3] all

                                  sorts of rubbish[2]

'Semantic' Chart

A rough chart of some of the semantic functions of redu-
plication may be offered here:

	Pr_{123} x	Adj	N	V	Nu	Adv
Intensive		+	+	+		+
Distributive	+	+	+		+	
Iterative/Continuative				+		
Collective	+					
Exclamatory			+			

Chapter Five

Lists

Summary of Chapter Five: (Lists)

Note on Lists

The following section consists of lists. As in other
sections, references are given to the latest relevant
rule or rules where the symbol (which is expanded in the
list) occurs.

The transcription is morphophonemic.

Specific Tob's and Top's concerning the usage or the
(ir)regularities of the listed items are given immediately
after each list. Any low level morphophonemic rule that
applies only to the listed items is also placed directly
under the list. This classifies the morphophonemic in-
formation conveniently into particular and general rules,
'irregularities' and regularities, non-automatic and auto-
matic. Obviously most of the morphologically conditioned
alternations are given under the lists, and the automatic
ones in a later section.

Semantic particulars, special usages and 'idioms' are also
briefly noted here.

The order followed in the lists is, by and large, the
order of their appearance in the kernel rules - except
where the lists are large, like nouns and verbs, and where

some lists are incorporated in later lists, indicating 'class-cleavage' (Bloomfield), or 'grammatical homonymy' (Jespersen). For instance, Post-positions occur as post-positions, as adverbs, and as nouns. So they are listed finally only after the nouns.

Glosses as elsewhere are rough equivalents, and do not exhaust all possible senses of words.

The items listed are not by any means exhaustive, but numerous enough to suggest the range of phonemic shapes, semantic domains, etc; care has been taken, however, to have representatives of every morphophonemic class (so that any new item turned up may, hopefully, be assigned to one of the classes already set up).

Three dots (...) at the end of a list means that it is an open list.

Gr   ----→   namáska·ra   greetings
              havd   yes
              illa   not
              alla   no
              sari -   all right
               ho·gbɨṭ barti·ni   goodbye ('I will
              ...   go and come')

$ye·n^1$ $viśe·ṣa^2$ 'What's^1 new?^{2}', $ye·n^1$ $sama·ca·ra^2$
'What's^1 the news^2?', $u·ṭa^1$ $a·yte^2$ 'Is your meal over?'
(Did you have your lunch, etc?) are used frequently as
greetings. All these can be derived by our earlier rules;
they do not fit into the structure of S, as the Gr-forms
do (cf. kernel 1).

As the glosses indicate, all the Gr-forms are not greetings,
but all of them are forms complete in themselves uttered
either as conversation-openers or closers, or as responses
to other sentences, or as sentence-substitutes.

I ---->	ayyo· pa·pa	Exclamation of pity, alas!
	c^{h}i	" strong disapproval
	che	" rejection of an idea
	hũ̱	Yes
	t^{h}u̱	Excl· of disgust, ugh!
	tsɨ̱	indifference

This list of interjections is only a sample. They occur
sentence-initially or-finally, and as free forms. Their
intonation has special features (here underscribed), like
their other phonological features. For instance in many
dialects, the aspiration is quite stable in these forms
though it may not be so in the other parts of the lang-
uage. Like other forms, classes, these also can under-
go re-duplication (p·119), with accompanying semantic
shifts in either intensity of overtone or in denotation:

c^{h}e che :	violent rejection of an idea
hũ̱·hũ̱ :	no, no (hũ̱ 'yes')

And the reduplication may be iterated several-fold, and
quite special infonations may appear with them. As in
the last item, there are phonemes found in this sub-
system found nowhere else in the language. What we
phonemicise as /ts/ is a voiceless dental affricate with
a suction-type of onset (a click?). Note also the
final /ɨ/, which occurs only medially everywhere else
except in exclamations like these. Nasalization is

another example: hū̃·, ayyo·, chi, thu occur before NP frequently·

chi· kaḷḷa!	'You thief' (a favorite inter-jection-and-address of endearment to children; note semantic shift in chi).
thu· koḷɨ ka!	'You dirty fellow!
ayyo· pa·pa!	'Poor fellow, alas!' (pa·pa else-where means 'infant' or 'sin', the former being a pet-name or term of endearment).

The glosses are only approximate, and do not by any means exhaust the range of contexts these exclamations can occur in·   The kinesic and intonational accompaniments of these 'affective' sub-systems are especially interesting and unexplored·

$$R \longrightarrow \langle alla \rangle \left\{ \begin{array}{c} a. \\ o.^1 \\ e.^1 \\ ante \\ ta.ne. \end{array} \right\} \langle {}^\frown e.n \rangle$$

Tob (20) :   alla o. X $\Longrightarrow$ alla o.

Here the clitics are listed: alla $o.^1_1$ 'is it not so'
$e.$

(where $o.^1$ is chosen, it cannot be followed by anything,
as shown by the Tob); ante 'it is said, it seems', the
quotative; e·nu 'what'. The vocatives may follow these
as indicated by the rule in the kernel 1. $o.^1, e.^1$ and a.
are question-markers, not to be confused with $o.^4$ the in-
definitizer (Top 17), and the emphatic $e.^3$ and $o.^3$ (Top 12),
nor with $e.^2$ and $o.^2$ the vocatives (List 3). ta·ne· is an
emphatic interrogative meaning something like 'surely,
only, etc?'

allavo.^{1}	Is is not so?
allave.^{1}	Is it not so?
allavo.^{2}	That is not so, my boy.
	(Different intonation)
ad alla^1 ta·ne^2	You're sure^2 it isn't so?'

Tob (20.1):

$$X \; V \; \hat{} \; \begin{bmatrix} e\cdot \\ u\cdot \\ a\cdot \\ o\cdot \end{bmatrix}_i \qquad ====\Rightarrow \qquad X \; V\hat{}n \qquad \begin{bmatrix} e\cdot \\ u\cdot \\ a\cdot \\ o\cdot \end{bmatrix}_i$$

Top (25,1): a· n^y   ====⟹   an^y   (y being the above
                                         vowels)

The clitics e·, u·, a·, o· (L.2,Top 70), have allomorphs
with n after vowels. If V is /i,e,u,o/ they will get
lengthened by rule (Tob 59). In this case /a/ also gets
lengthened, instead of being reduced (Mphcs, Tob 66).

kuri·ne·?[1][2]   Is it[2] a sheep?[1]

ra·m(a·)ne·[2] banda[3]   Rama[1] himself[2] came.[3]

se·te·na?[2]   Is it[2] Sita?[1]

130.1

Voc $\longrightarrow$ kaŋ⟨ri⟩$\begin{Bmatrix} o.^2 \\ e.^2 \end{Bmatrix}$ ...respectful pl $\begin{cases} \text{masc addressee} \\ \text{fem} \qquad \text{e.} \end{cases}$

simple pl masc)
                 fem

sa.r   sir!

appa   father, or to friends as
                    familiar address

amma   mother, or to female friends

swa.mi   respectful address to males

de.var   'god', a form of address to
                    males, often humorous

magu   child, to children, or younger
                    addressees, both m and f

mari   'kid'

...N^$\begin{cases} ⟨e.⟩ \\ \text{pl} \begin{cases} e. \\ a. \end{cases} \end{cases}$ Any noun with e. as optional
                    vocative. Plural vocatives
                    are e. and a.

Tob (21): $\begin{matrix} o.^1 \\ e.^1 \\ e.n \\ ta.ne. \end{matrix}$ } ^ kaŋ^x $====\Rightarrow$ $\begin{cases} \text{kaŋ}^x \\ \text{ta.ne.} \end{cases}$ (Source:
                                                                List 2)

kaŋ doesn't go with the four clitics listed.

Other forms of address can be a.ded, like mistar; but they
are used only in somewhat special circumstances. For
instance, mistar is used somewhat defiantly in challenging
someone, or in asking strangers for a favour (with a
change in intonation, naturally). In other dialects and
communities, ta.yi (mother), akka (elder sister), aŋŋa

(elder brother) and other kinship terms are used as
vocative additions to sentences; but these and the last
five in our list above, are only a special case of any
noun being used vocatively, which is provided for by N.
The four are mentioned explicitly, as they are frequent,
and are specific terms of address. Note that magu has a
morphophonemic u finally, as its allomorphs are different
from de·varu: e·g·, magu· ge 'to the child', de·vir ge
'to god'.

yenamma bande?   Why, amma, did you come?

ye·n magu bande?   Why, child, did you come? (any N)

avin banda sa·r   He came, sir.

ho·gti·r[1] e·nro·[2] hudigra·?[3]   You are going,[1] are you,[2]

                                        boys?[3]

(The final a· is a variant of vocative a·)

F ----→	i·ga	now
	⟨a·ce⟩ na·ḍidd	(the day after) the day after tomorrow
	na·ḷe	tomorrow
	inme·le	from now on, after this
	M^{å / a·d}^me·le	after M / after M is over

P ----→	a·ga	then
	ninne	yesterday
	⟨a·ce⟩ monne	(the day before) the day before yesterday
	M^â^hinde	before M
	i·ga	now

I ----→	beḷagge	in the morning
	mad^{h}ya·na	in the afternoon
	Pr$_{123}$^{va·ga / vott / lḷi varɨge / tanka}	this time
		that day
		which
		till now
		then
		when
	M^{åɖme·le / g^modɨl}	after M
		at M, before M

(The enclosed three items in the gloss refer to Pr$_1$, 2 and 3 respectively.)

M   ──→   Nu ⟨^ ne⟩+ m.   Numeral $\begin{cases} \text{time-units} \\ \text{like 'minute,} \\ \text{hour, day,} \\ \text{week, etc.'} \\ \text{Cf. neuter} \\ \text{noun-lists.} \end{cases}$

⟨ordinalizer⟩

These are time-words and phrases that agree with the tenses.

Bahd ----→ b^ho·d   can, may

                be·k   must

Neg   ----→ ba·rd   ought not

               ku·ḍd   must not

               la·r   cannot

Tob (22): $Vb\begin{bmatrix} t \\ in \end{bmatrix}_i$ ^ la·r   =====⇒ $Vb\begin{bmatrix} t \\ in \end{bmatrix}_i$ ^ la·r^k

The three kinds of negatives are listed here; the Tob
indicates that, of the three, la·r can take the person-
number-gender endings of verbs, and agrees like other
verbs with the subject of the sentence.

ajja[1] vo·ḍla·ra[2]   Grandfather[1] cannot run[2]

ajji   vo·ḍla·rḷu   Grandmother cannot run

ajja   vo·ḍku·ḍɨḍu   Grandfather mustn't run

ajji   vo·ḍku·ḍɨdu   Grandmother mustn't run

Top (26·1): $ni·n \atop ni·v \big]_i$ + Vb^ba·rd =====⇒ $ni·n \atop ni·v \big]_i$ + Vb^$\begin{bmatrix} be·da \\ be·di \end{bmatrix}_i$

Negative imperatives for II person singular and plural are
derived here.

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Post-po ^ a   ----→ Po_1
                          Po_2
                          ha·ge   like
                          tanka   till
                          badal   in (its) stead
                          mu·lka   through

Post=po ^ g   ----→   〈inta^〉 ⎰modal⎱ 〈n^inda〉   prior to (N),
                                                        from (n inda)
                                                        even before
                                  ⎱munce⎰   previous to
                          hinde ⎰hinde ⎱   behind, before
                          badal 〈^a·gi〉   instead of
                          ma·tra   only
                            o·skara   for
                            anta   'saying', for
                                                        X's sake

Post-po ^ inda ----→   a·ce ⎱   beyond
                          i·ce ⎰ **g**   this side of

These are postpositions that go with particular case-
endings on the preceding noun (phrase), as indicated by
the a, g, inda on the left hand side.

By and large, modalu, munce, do not go with locational words
(N_{loc}), i.e., do not indicate space-relations; when used
with N_{loc}, they mean something different:

yi. mane.g[1] modïlu[2] yille.nïttu?[5]

Before[2] this house[1] (was built) what[4] was[5] here?[3]

As these words are used in this sense, also, no restrictions
are placed on them.

a.ce and i.ce, usually space-words, are used to denote
time-relations also:

hat varṣdindi.ce.ge[2]

Since[2] ten years[1]

The case-endings also (cf. chart, p. 18) are used similarly
with both time-words and space-words.

Both hatra and mu.lka take on "instrumental" functions
when the N's they are post-posed to are 'animates' (which
we may tentatively list here as N_c, N_m, N_f, $N_{animals}$,
though words like sarka.ra 'government' also belong here).
They have simple "locational" connotations ("near" and
"through") with all nouns, not only with N_{loc}. Thus
a.fi.s mu.lka might mean "through the office-building"
or "through the official channels etc." as the meaning
(or class-membership) of a.fi.s shifts. But in
avï'n[1] hatra[2] hat[3] ru.pa.y[4] ide[5] "there are[5] ten[3]
rupees[4] with[2] him[1]," hatra is "locational"; in avïn

hatra hat ru·pa·y koḍi sde "I caused the ten rupees to
be given by him" it is "instrumental" (cf p·171, for
Po₁, Po₂).   If we were studying lexical collocations
at greater depth than we are, we would explore the
tendency of causative Vb's (V^s) to take the hatra-type
of adverbials.   Non-causatives like isko 'get, borrow
(from)' and kali 'learn (from)' also take these.   In
literary and written styles, much of this range of
hatra and mu·lka would be covered by the ablative
ending inda·

Top (27): $Pr_{12}\hat{\ }\begin{bmatrix} m \\ f \\ n \\ mf\hat{\ }pl \\ n\hat{\ }pl \end{bmatrix}_i$ $+ X\hat{\ }k ====\Rightarrow$ $\begin{bmatrix} ta\cdot n & +X k + X\hat{\ }k \\ \\ ta\cdot v_2 \ \langle gl \rangle \end{bmatrix}_i$

Top (28): $Pr_3\hat{\ }\begin{bmatrix} m \\ f \\ n \end{bmatrix}_i$ $====\Rightarrow$ $\begin{matrix} ya\cdot r \\ \\ e\cdot n \end{matrix}\Big]_i$ who

    which, what

List a) $Pr_{123}\hat{\ }\begin{bmatrix} m \\ f \\ n \\ mf\hat{\ }pl \\ n\hat{\ }pl \end{bmatrix}_i$ $====\Rightarrow$ $Pr_{123}\hat{\ }\begin{bmatrix} v\dot{\imath}n \\ v\dot{\imath}l \\ d \\ v\dot{\imath}r \\ v \end{bmatrix} \langle gl \rangle \Big]_i$

List b) $Pr_1 \\ 2 \\ 3 \Big]_i$ $====\Rightarrow$ $\begin{matrix} a\cdot \\ i\cdot \\ ya\cdot \end{matrix}\Big]_i$

The Tops give alternative forms for Pr 1, 2, and 3. Lists
a) and b) list the occurrent pronominal person-gender-
number endings, and the Pr-forms. Pr_1 is remote demon-
strative, Pr_2 is proximate demonstrative, Pr_3 is inter-
rogative. ta·nu and ta·vu$_2$ are singular and plural
reflexives; their concordial relations are like those of
the third person pronominals (Top 27).

For the extra-plural ɨglu, cf. page 150.

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Tob (23):

a)

$$\text{ya·} \begin{bmatrix} v\text{±}r \;\langle gl\rangle \\ d \\ v \;\langle gl\rangle \end{bmatrix}_i =\!=\!=\!=\!\Rightarrow \begin{bmatrix} \text{ya·r} \\ \text{ya·vd} \\ \text{ya·vv} \end{bmatrix}_i$$

b)

$$\begin{bmatrix} \text{a·} \\ \text{i·} \end{bmatrix}_i {}^\wedge X =\!=\!=\!=\!\Rightarrow \begin{bmatrix} \text{a} \\ \text{i} \end{bmatrix}_i {}^\wedge X$$

c)

$$\begin{bmatrix} \text{a} \\ \text{yi} \\ \text{ye} \end{bmatrix}_i {}^\wedge \begin{bmatrix} \text{ge} \\ \text{ga} \end{bmatrix}_j =\!=\!=\!=\!\Rightarrow \begin{bmatrix} \begin{bmatrix} \text{ha·} \\ \text{hi·} \\ \text{he·} \end{bmatrix}_i {}^\wedge\text{ge} \\ \begin{bmatrix} \text{a· va·} \\ \text{yi· va·} \\ \text{ya· va·} \end{bmatrix}_i {}^\wedge\text{ga} \end{bmatrix}_j$$

The Tob's give rules that derive allomorphic forms. Pr_1 and Pr_2 lose the length on the vowels when affixed to any permissible item. Pr_3 does not take honorific ‡glu.

cf. a· (that) a du (that thing).

ge and ga do not follow the pattern of the other Pr_{123} forms. The first gets an initial h and length on the vowels; the second, length on the vowels. ga has va· after Pr_{123}, though it is optional after Pr_1 and Pr_2.

nu^hatt ----→ hatt   ten
              ippatt   twenty
              muvvatt   thirty
              nalavatt   forty
              ayvatt   fifty
              aravatt   sixty
              eppatt   seventy
              emb⟨h⟩att   eighty
              tomb⟨h⟩att   ninty

nu   ----→ ond   one
               eraḍ   two
               mu·r   three
               na·⟨la k⟩k   four
               ayd   five
               a·r   six
               e·ḷ   seven
               enṭ   eight
               omb⟨h⟩att   nine

Tob (24):

a)   hatt + $\begin{bmatrix} ond \\ eraḍ \end{bmatrix}_i$ =====⟹   hann^$\begin{bmatrix} ond \\ eraḍ \end{bmatrix}_i$ eleven
                                                                                       twelve

$\begin{bmatrix} mu·r \\ na·⟨la k⟩k \\ ayd \\ a·r \\ e·ḷ \\ enṭ \\ omb^hatt \end{bmatrix}_j$ hadɨn$\begin{bmatrix} mu·r \\ na·⟨la k⟩k \\ ayd \\ a·r \\ e·ḷ \\ enṭ \\ omb^hatt \end{bmatrix}_j$ thirteen
                                                                                            fourteen
                                                                                            fifteen
                                                                                            sixteen
                                                                                            seventeen
                                                                                            eighteen
                                                                                            nineteen

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Tob (24):

b)
$$
\text{hadin}^{\wedge}
\begin{bmatrix}
\text{na·lakk} \\
\text{mu·r} \\
\text{omb}^{\langle h \rangle}\text{att}
\end{bmatrix}_i
\;=\!=\!=\!=\!=\!\Rightarrow\;
\begin{bmatrix}
\text{hadi na·lakk} \\
\text{hadi mu·r} \\
\text{hattomb}^{\langle h \rangle}\text{att}
\end{bmatrix}_i
$$

Tob (24):

c)
$$
\begin{bmatrix}
\text{ond} \\
\text{erad} \\
\text{mu·r} \\
\text{na·}\langle \text{la k}\rangle \text{k} \\
\text{ayd} \\
\text{omb}^{\langle h \rangle}\text{att}
\end{bmatrix}_i
+ \text{nu·r} =\!=\!=\!=\!\Rightarrow
\begin{bmatrix}
\text{ond} \\
\text{in} \\
\text{mun} \\
\text{na·} \\
\text{ay} \\
\text{omb}^{\langle h \rangle}\text{ay}
\end{bmatrix}_i
{}^{\wedge}\text{nu·r}
$$

(one) hundred
two hundred
three hundred
four hundred
five hundred
nine hundred

Only the more regular allomorphs of hattu (ten) and the numerals are given by the Tob's; where each form seemed to require a rule, as in nu hattu, they are simply listed as primes, though further analysis is possible.

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Tob (25):

a)　　ond] + X^k + Y　　====⟹　　ond]^k + X^k + Y
Tob (2 er±d]ᵢ　　　　　　　　　　er±d]ᵢ

b)　　ond]^n^pl+X^k　====⟹　ond] + X^[n　]
　　　er±d]ᵢᵢ　　　　　　　　　er±d]ᵢ　　[n^pl]ᵢ

c)　ond^{m}⟨pl⟩] k + X^k　====⟹　ond[m　]+ X [m　]
　　　　　{f}　　　　　　　　　　[f　]　　[f　]
　　　　　　　　　　　　　　　　[mf^pl]ⱼ　[mf^pl]ⱼ
　　erd^ mf^pl]ᵢ　　　　　　　　ibbar　　　mf^pl]ᵢ
　　　　　　　　　　　　　　　　　　]ᵢ

ond^[m　]　　----→　obba　]
　　[f　]　　　　　obb±1
　　[mf^pl]ᵢ　　　obb±r]ᵢ

Top (29):　　obb±r + N^mf^pl + X　====⟹　ob + N^mf^pl + X

Kernel 22, expanding numerals allows vondu and yer±du to
take certain person-number suffixes. But via K. 11, K. 2
requires for them also to have a concordial relation with
B k. The above two rules adjust the concordial relations:
b) vondu and yer±du are neuter singular and plural, c)
gives the concords for m, f, and their plurals.

An X and not the specific B of K. 2 is used here because,

we wish to include an Adjective-Noun concord (Table 25a) between
vondu and yerɨdu and the nouns they modify. These are the
only two adjectives where such a concord is necessary.
In the case of dvondu mf^pl the plural share honorific; where
vobru modifies a following N^mf^pl, it may drop the ru.
(Top 16).

    vond   bantu   one came (n. sg)

    yerɨḍ bandvu   two came (pl)

The possibility of yerɨḍ bantu (sg) is a special instance
of the optional plurals for neuters (cf. Top 16).

    yibbɨr bandidru Two people had come (mf pl)

    vobba bandidda One man had come (ond m + Vb m)

Concord between vondu, yerɨḍu and the nouns they modify
is clearly seen in the masculines and feminines, as the
neuters tend to drop the plural endings:

    vob manɨṣya   a man

    vob ru doḍdavru an elder (hon. pl)

    ibbɨr manɨṣru   two men (pl)

Source: K. 12,22, L. 7

Tob (26):   lakṣa ⎤   + X ====⟹   lakṣa ⎤^ ɑ   + X
             sa·vɨra ⎬   sa·vɨra ⎬ᵢ
             nu·r ⎦ⱼ   nu·r a ⎦ᵢ   ⱼ

Where X is any permissible numeral in K. 22.

Top (30):

a)   lakṣa^ne + Y   ====⟹   lakṣa + nambarna + Y

Where Y is any permissible item after Nu ne
(K. 11,12).

b)   Nu ^ne + Nu   =====   Nu ^a^al + X

Where X is any Nu.

Tob 26 requires that lakṣa, sa·vɨra, and nu·ru (million, thousand, hundred) should have a genitive suffix when followed by a numeral.

hat lakṣɨd mu·r sa·vra   Ten million and three thousand
sa·vɨrdenṭu   One thousand and eight

laksa, sa·vīra and such other large numbers look unusual
with ñe (the ordinalizing suffix) on them, though they
are acceptable; some people would replace ñe by some-
thing like (laksa) nambarna 'of the number (million)'.

Top 30 b deals specifically with fraction-citations, where
ne is used on the denominator: nu·rne· vondu (one part
in a hundred, one one hundredth, one-hundredths). Often
ne is replaced by a^al (a^al = genitive + locative
suffixes) equivalent in meaning to Eng. 'in a million, in
a thousand'.

$$\left.\begin{array}{c} \text{Nu}_1 \\ \text{ella} \end{array}\right]_i \quad \char`\^n\char`\^pl \quad \longrightarrow \quad \left.\begin{array}{c} \text{halav} \\ \text{kelav} \\ \text{ella} \end{array}\right]_i \quad \left.\begin{array}{c} \text{a few} \\ \text{some} \\ \text{all} \end{array}\right]_i$$

These are indefinite quantifiers. Their epicene plurals
are as below; their shape is unchanged for the neuter
pl. s.

$$\left.\begin{array}{c} \text{Nu}_1 \\ \text{ella} \end{array}\right] \mathrm{v} \quad \char`\^mf\char`\^pl \quad \longrightarrow \quad \left.\begin{array}{c} \text{halav} \\ \text{kelav} \\ \text{ell} \end{array}\right] \text{ir} \quad \begin{array}{c} \text{a few} \\ \text{some} \\ \text{all} \end{array} \quad \text{people}$$

adv$_1$	----$\rightarrow$	bah$\pm$la	much, very
		innu.	still
		tumba	a lot, very
		vipri.ta	excessive

(emphatics)

adv$_2$	----$\rightarrow$	solpa	a little
		konca	a bit

adv$_3$	----$\rightarrow$	be.ga	fast
		mellage	slowly
		adv$_4$ ^ a.gi	adjectives nominalized)^a.gi
		Iıes	descriptive nouns,etc.)
		tan̥n̥ge	coolly
		Po l	Post-positions like vo$\c{l}$age 'inside'

Imit	----$\rightarrow$	Imit 1	(Source: K. 8)
		Imit 2	

Imit$_1$	----$\rightarrow$	gad$\pm$bada	made noisy haste
		b^{h}ag b^{h}aga	of burning

Imit$_2$	----$\rightarrow$	p^{h}akk	suddenly, etc.
		t^{h}att	all at once
		p^{h}att	quickly, etc.
		g^{h}oll	of laughter, guffaws, etc.

Imitative forms that act as adverbs with the addition of
 anta are divided into reduplicative and single forms, the
former alone being capable of being verbalized by the
addition of s (cf. Derivation 2, p. 181).

ad ----→	cikka	small, young
	doḍḍa	big, adult
	haḷe	old
	hosa	new
	puṭṭa	tiny
	saṇṇa	little, small
	voḷḷe	good
	N$_{col}$	Nouns of color

Adjectives are listed here. Here it may be noted that
some of the most common adjectivals are not mono-morphemic,
but adjectival participles of verbs like keṭṭa 'that
which is spoiled, bad'. Adjectives are distinguished
from Ndes or descriptive nouns, which overlap with them
in distribution, by the fact that adjectives may take kr(K.k 3,11)
directly and get nominalized ('become predicative').

| yidu cikdu | This is small (cikkadu = cikka a du) |
| yidu cik mane | This is a small house |

$$N\hat{}m_3\big]\;\hat{}\;pl$$
$$N\hat{}f_3$$
$$N\hat{}n\big]_i \longrightarrow N\hat{}m_3\big]\;\langle g\underline{l}\rangle$$
$$N\hat{}f_3$$
$$N\hat{}n\big]_i$$

$$N\hat{}f_1\big]\;\hat{}\;pl$$
$$N\hat{}m_1\big]_i \longrightarrow N\hat{}f_1\big]\;\hat{}r\;\langle g\underline{l}\rangle$$
$$N\hat{}m_1\big]_i$$

$$N\hat{}f_2\big]\;\hat{}\;pl$$
$$N\hat{}m_2\big]_i \longrightarrow N\hat{}f_2\big]\;andr\;\langle g\underline{l}\rangle$$
$$N\hat{}m_2\big]_i$$

Top (31):   Nc $\Longrightarrow$ Nc $\langle g\underline{l}\rangle$

The different kinds of plural allomorphs that are selected
by the different noun-classes are detailed here. i̱g̱lu, which
usually goes with neuter nouns like mara (tree), also goes
with a small number of masc. and fem. nouns, ajjig̱lu (grand-
mothers), gurug̱lu (the gurus); the usual plural form for
masc. and fem. nouns is ru as in ra·jru (the kings),
ra·ni·ru (the queens), but they can take a further plural
i̱g̱lu, as an intensifier of the plurality; this is especially
so when ru can be honorific and not a quantifying plural,
as in ra·jru (which may mean either one ra·ja respectfully

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referred to, or many ra·jas)· This sort of contrast is
neutralized in the pronominals sometimes, where ɨgļu is
added to an already plural form to intensify not the
plurality but the respectfulness:

ni·nu (you, sg)   ni·vu (you, pl or honorific)   ni·vɨgļu
                                                     (you, pl)

ni·nu (you, sg)   ta·vu (you, honorific)   ta·vɨgļu
                                                     (you, hon·
                                                     intensified)

avnu   (he)   avru   (pl, or honorific)   avrɨgļu
                                                     (pl inten-
                                                     sified)

Cf· lists of pronominals and their plurals (L· 7)·

andru is generally taken by kinship terms, like gaɳḍa
(husband), though not all kinship terms take it (tandegļu,
fathers)· Some of the nouns are in more than one class,
as there is considerable free variation in the smaller
classes: ajji·ru (grandmothers), also ajjigļu·

Nc is a small class of nouns that are always plural; they
may optionally take an honorific ɨgļu·

Nc   ----→   da·var   god
               da·kṭar   doctor
               jana   ⟨ʂḷ⟩   people
               la·yɨr   lawyer
               tande·ta·yi   parents
               ...

Some nouns take the mf^pl concord only; morphological
marking of the plural (ɨgḷu which is usually the n^pl)
is optional with them. ḍa·kṭru, la·yru, etc. are English
loans, 'doctor', 'lawyer', etc, that end with ru in Kannada
(as Ka. adds -u to consonant finals, cf. in Morphopho-
nemics). As ru also happens to be the Ka. mf pl ending,
these words are always in the plural. The prestige of
these professions also add to the respectful use of plurals.
When someone wishes to be disrespectful re. lawyers, for
instance, they add -i, 'la·yri'. The non-English equivalents
vaydya and vaki·la admit of singulars and have slightly
pejorative overtones. de·vru (god) may be either singular
or plural, but when singular is always masc, god being
made in man's image, not woman's; specific gods or goddesses
like Krɨṣṇa or Lakṣmi are of course masc or sing. de·vru
is placed in the masc. list also.

Source: L. 14

N^f₁	----→	N^f des	feminine descriptives
		N^fp^dim	Names of women
		N^fd	Derived feminines
		heng±s	woman
		ra·ni	queen
		sose	daughter-in-law
		...	

N^m₁	----→	N^m des	Masculine descriptives
		N^mp^dim	Names of men diminutives
		N^md	Derived masculines
		de·var	god
		gaṇḍ±s	man, male
		ra·ja	king
		rayta	farmer
		sulta·na	sultan
		vaydya	doctor, esp· 'native'
		vaki·la	advocate, lawyer
		...	

X^dim^pl	------	X^dim^±gḷ	Any personal diminutive takes ±gḷ as plural

Source: List 16

N$^{\wedge}$fp   ----→   kamɨla
              lakṣm$^{\circ}$i
              si·t$^{\circ}$a   ⟨$^{\wedge}$ aṃṃa⟩   amma for elders,
              śa·nt$^{\circ}$a   often part of name
              saras$^{\circ}$vati   ('amma' also means
              ...   mother)

N$^{\wedge}$mp   ----→   krɨṣṇ$^{\circ}$a ⟨$^{\wedge}$ {appa, aṇṇa, ayya}⟩   appa etc. for
              ra·j$^{\circ}$a   elders, often part
              ra·m$^{\circ}$a   of name
              ...   ('appa, ayya' = father,
                                                               'anna' = brother)

Many names end in amma, aṇṇa, etc. - the four kinship
terms above noted being most frequent. These are also
used after names for respect or affection (by servants,
acquaintances, etc.). mu·rṭi, ra·v, ayyɨr, na·yɨdu,
śeṭṭi and other caste-names may be added to the name-
endings - but they do not have the generality nor the
suffixal character of these four.

$$X\smallfrown \left.\begin{array}{l} \text{amma} \\ \text{anna} \\ \text{appa} \\ \text{ayya} \end{array}\right]_i \left.\begin{array}{l} \smallfrown \text{pl} \\ \\ \end{array}\right. \quad ----- \quad X \left.\begin{array}{l} \text{amma} \\ \text{anna} \\ \text{appa} \\ \text{ayya} \end{array}\right]_i \left.\begin{array}{l} \text{no·r} \\ \\ \end{array}\right]$$

Z$\doteq$a

Z-i

Z-a andr

Z-i gl̟

no·r being honorific plural, X being all that precedes
amma, etc· in List 17 and plurals for names ending in -a
and -i; Z being all that precedes them.

Top (32):   saras^{o}vati$\smallfrown$amma   ====⇒ $\begin{cases} \text{sarasvat}^o\text{i}\smallfrown\text{amma} \\ \text{saras}^o\text{vati}\smallfrown\text{amma} \end{cases}$

Tob (27):

a)   Z^{o}Y X   ====⇒   ZX   (X being any per-
                                               missible suffix)

b)   Z^{o}Y dim   ====⇒   Z   (Source: List 16)

Allomorphs for names before amma, etc·

c) $\left.\begin{array}{l}\text{Krisn} \\ \text{laksm}\end{array}\right]_i$ ====⇒ $\left.\begin{array}{l}\text{kitt} \\ \begin{cases}\text{lacc} \\ \text{lacci}\end{cases}\end{array}\right]_i$

Special diminutives for Krisna, Laksmi: kittu, laccu lacci·

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N^f2 ----→ ⟨dodda⟩ ⟨amma   ⟨older ⟩ ⟨mother
             cikka/   akka   younger/   elder sister
                      atte   aunt
                      heṇ⟨ḍ⟩ti   wife
   tangi   younger sister
                      ...

'Older' and 'younger' mother mean mother's older and
younger sisters. With regard to elder sisters (akka)
dodda and cikka mean the older and the younger of two
elder sisters, respectively; similarly with the other
words.

N^m2   ----→ ⟨dodda⟩ ⎧ aḷɨya   ⟨Older, big \ ⎧son-in-law
        ⟨cikka⟩ ⎪ anna   ⟨younger,   / ⎪elder brother
                 ⎪ appa   small/   ⎪father
                 ⎨ ganda   ⎨husband
                 ⎪ ma·va   ⎪uncle
                 ⎪ tamma   ⎪younger brother
                 ⎪ ta·ta   ⎩grandpa
                 ⎩ ...

'Older' and 'younger' father refer to father's older and
younger brothers.

'Older' and 'younger' husbands are retained here though
the culture is not polyandrous: they can mean 'big' or
'small' husband.

With the other words,'older' and 'younger' mean older and
younger of a pair of uncles, sons-in-law, etc. These
are regularly distinguished in a family.

N^m3   ----→   aras   king, also a community
                 da·nsarr   dancer
                 guru   religious teacher
                 swa·mi   master, religious teacher
                 {kriṣṇa}^ swa·mi proper names
                 {ra·ma}^ mu·rti
                 maga   son
                 •••

N^f3   ----→   ajji   grandma
                 magił   daughter
                 me·ḍamm   madam, school-mistress
                 nars   nurse
                 ta·yi   mother
                 •••

Tob(27·1) maga } ∝głˆ ===> makkił
           magił}

głu, which is the regular plural ending for neuters is
used with some of the masculine and feminine, and regularly
with all English-borrowed N^m's and N^f's like narsu,
ḍa·nsarru··· In fact, ~~i~~głu is the most productive of the
plural allomorphs· maga and magiłu (and magu, child) have a
special plural, makłu·

guru is written ~~morphophonemically~~ with an u finally because
like hasu and magu (cf· List 3) before junctures and
suffixes like a (genitive) the u is lengthened·

   guru^a^mane · ----→ guru·[1] mane[2]   the guru's[1] house[2]

/magiłu/, morphophonemically magił, does not behave like
this: magił^a mane   magił[1] mane[2]   the daughter's[1] house[2]

N^n_2	-----	akki	rice
		anna	cooked rice
		beḷḷi	silver
		benṇe	butter
		cinna	gold
		ha·l	milk
		kasa	dirt
		koḷe	dirt, filth
		majjɨge	buttermilk
		ni·r	water

In dialects like the North Karnatak one, ha·lu 'milk',
etc. can take plurals - another case of the general and
hierarchy of rules not only being a descriptive device but
also of dialect description. If dialect features are
ranked according to productiveness and paradigmatic regu-
larity, rules of higher and lower generality would auto-
matically assign regular and irregular forms to different
dialects.

$N^{\wedge}n_1$ - - - - - N_{Abst} Abstractions

                            N_{Body} Body Parts

                            N_{Places} Places

                            N_{Me} Measures

                            N_{Things} Things

                            • • •

The neuter nouns N^n[1] are arbitrarily divided into rough and ready domains just to guide the reader in looking for any particular word. No restrictions are meant (except on Ndes, Po[12], N[col], N[co], N[me], as indicated by the notes and Top's), as idiomatic usage seems to break all restrictions so placed on the collocation of verbs and nouns, say the nouns of location with verbs of motion. However, intensive inquiry into any semantic classes that may obtain, may reveal patterns not visible at this stage.

nenne[1] maysu·rñinda[3] na·n[4] bande[5]
yesterday[1] I[4] came[5] from[3] Mysore.[2]

na·nu[1] raylñinda[3] bande[4]
I[1] came[4] from[3] the train[2]   ('train' will have to be
                                        included under locatives)

maysu·rñinda[2] magu[3] aḷtittu[4]
From[2] Mysore[1] the child[3] was weeping.[4]
('From Mysore on, the child kept weeping.')

                                   (aḷu is not a verb of
                                    motion)

Similarly it was not possible to classify nouns according to the case-endings they take:

maysu·rñinda[2] bande[3]
I came[3] from[2] Mysore.[1]

Maṙdinda[2] kurci[3] ma.ḍɨde[4]

I made[4] a chair[3] out of[2] wood[1]

yidu[1] maniṣṛinda[3] a.go.[4] kelsa[5] alla[6]

This[1] is not[6] a job[5] that can be done[4] by[3]men[2]

koḍḷi·yinda[2] mara[3] kaḍɨde[4]

I felled[4] the tree[3] with[2] an axe.[1]

If the ablative inda is taken as criterial, maysu·r
'Mysore, a place', mara 'wood', maniṣya 'man, mortal',
koḍḷi 'axe' have all to be placed under one class; they
would form a curious class, because this would be the
only criterion that would bring this motley group together;
they would correlate with no other classification. A
semantic classification or characterisation is probably
useful in teaching, but it cannot be based on any known
structural cirteria: i·e·, that the ablative inda is
taken by location-nouns with verbs of motion frequently, by
nouns descriptive of materials like wood, iron, etc, by
instruments like axe, etc. This sort of description is
summarised in an earlier chart (p· 18, note after K· 10).

N_{Abs} $----\rightarrow$

beḷak	light
ma·t	speech, word
caritre	history
dukk^{h}a	sorrow
dve·ṣa	hate
d^{h}ayrya	courage
ha·sya	humor
katle	darkness
kelasa	work
kole	murder
koḷe	dirt
lekk^{h}a	mathematics
maylge	uncleanliness
pḷe·g	plague
puṇya	ment
pa·pa	sin
ro·ga	disease
sankaṭa	distress
svab^{h}a·va	nature
sande·ha	doubt
ṭayfa·yḍ	typhoid
udda	length
vya·karaṇa	grammar
yettara	height
Ndes$_1$	Descriptive Nouns (abstract)
Nabs-d	Derived abstract nouns

List 25: Descriptive Nouns

Source: L. 16,24

Tob (28): $Ndes_1\hat{\ }k + X \hat{\ } n \implies Ndes_1 + X\hat{\ }k$ (K. 2,11)

$Ndes_1$ ---->   curɨk   sharpness

cu·p   sharpness (as of a knife)

dappa   fatness

hecc   much

kaḍɨme   less

kaṣṭa   difficulty

koḷe   dirt

le·s   better

sari   right

sulab^{h}a   easy, ease

tapp   wrong

va·si   better

N_{col} color-words

$N\hat{\ }f$-des ----> Nm-des$\hat{\ }$i

$N\hat{\ }m$-des ----> budvant^{o}a   smart fellow

daḍḍ^{o}a   dull fellow

ja·ŋ^{o}a   intelligent fellow

koḷɨk^{o}a   dirty fellow

· · ·

Ndes are descriptive nouns. This class is set apart
because they act like adj's in entering into comparative
constructions (Top 6):

avɨnginta yivɨn koḷɨka

This fellow is a dirtier fellow than that.

Nm-des are masculine nouns that are descriptive (i.e. can
enter into the above construction), Nf-des are feminine
nouns, derived from Nm-des by affixing i.

Ncol are nouns of color; they behave like $Ndes_1$ in the
above construction, but like adjectives and nouns elsewhere.

$Ndes_1$ nouns can occur with any gender or number (Tob 28).

avɨrginta ivɨr dappa

These fellows are fatter than those.

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N_{Body} ----→

	ba˙yi	mouth	
(heb)	beraḷ	(big) finger (big finger=thumb)	
	benn	back	
	ede	chest	
	gaṇṭiḷ	throat	
	hall	tooth	
	hoṭṭe	stomach	
	hokkiḷ	navel	
	jaṭʰara	viscera	
	ḳariḷ	intestines	
	kankiḷ	arm-pit	
	ḳaṇṇ	eye	

flat of   ⎧ an ⎫
front of ⎨ ·mun ⎬ ^ ⎫ ḳa˙l   leg   moṇaka˙lu=knee
back of ⎨ hin ⎬   ⎬ ḳayyi   hand   aṇgayyi=palm
joint of ⎩ moṇa ⎭   moṇakayyi=elbow

ḳatt	neck
ḳu˙diḷ	hair
ḳenne	cheek
ḳivi	ear
mukʰa	face
mu˙g	nose
mu˙ḷe	bone
mole	breast
mayyi	body
na˙liɡe	tongue
netti	forehead

N$_{Body}$ ---->   ṭale   head
(cont)   toḍe   thigh
                               to·ḷ   arm
                               tika   buttock
                               ṭuṭi   lip
                               ugɨr   nail
                               ...

Subscript v is a morphophoneme (cf. Tob 37)
Body parts enter into avvery large number of 'idiomatic'
collocations. Here is a sample list of common ones (the
resemblance with some of the English collocations may
also be noted):

ben[1] taṭṭɨda[2]   He slapped[2] X's back[1]
                           'He encouraged X'
karɨḷ[1] kalaktu[2]   (His) intestine[1] was disturbed[2]
                           'He was moved deeply'
kaṇ[1] kempa·ytu[2]   (His) eye[1] became red[2]
                           'He grew angry, jealous, etc.'
ka·l[1] kerɨda[2]   He scratched[2] his leg[1]
                           'He spoiled for a fight'
kay[1] koṭṭa[2]   He gave[2] his hand[1]
                           'He gave the slip'
kivi[1] koṭṭa[2]   He gave[1] ear[2]
                           'He paid attention'
muk^{h}a[1] murɨda[2]   He broke[2] X's face[1]
                           'He insulted X'

may^1 mur$\pm$da^2 He broke^{2}his body^1

'He stretched his limbs'

(after sleep, etc.)

nin tale!   Your head!

'an exclamation of impatience

with someone'

toḍe^1 taṭṭ$\pm$da^2 'He slapped^{2}his thigh'^{1}

(as in Indian wrestling)

'He got ready for a fight

tuṭi^1 kackoṇḍa^2 He bit^2 his lip^1

He realized his error

N$_{Loc}$ ----→

amer(i)ka	Amerika
afi·s	office
a·ka·śa	sky
beṭṭa	hill
ba·vi	well
bʰu·mi	earth
bi·di	street
bila	hole
caraka	square
carc	church
de·śa	land
e·ṣya	Asia
gu·ḍ	nest
guḍi	temple
guḍïsl	hut
haḷḷa	pit
ha·sana	Hasan
ja·ga	place
kayla·sa	(Siva's) Heaven
koḷa	tank
ka·le·j	college
laybri	library
mane	house
maysu·r	Mysore
ma·ḍi	ypstairs
ma·rkeṭṭ	market
nela	floor
nadi	river
o·ṇi	lake

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N_{Loc} ----→
(cont)

pa·ta·ḷa	Netherworld
prapanca	world
ru·m	room
raste	road
samudra	sea
sandi	alley
sku·l	school
st^{h}aḷa	place
svarga	Heaven
tu·t	hole
ṭo·ṭa	garden
u·r	town
yu·ro·p	Europe
Po 1	
Po 2	
...	

Tob (29):   Pol^   al⌉   ====⟹   Po^ge ⌉
                     g ⌋ᵢ   Po^kke ⌋ ᵢ

The locative post-positional nouns Po 1 do not take the
locative case suffix al. When the dative suffix g
is added to Po ge, we get Po kke.

        voḷag   ba.   Come in.

        mane. voḷak   ba.   Come inside the house.

                                 (Cf. mane.g^1 ba.^{2} 'Come^2 to
                                 the house^1)

That the latter is dative and not just a free variant of
voḷage, etc. is shown by the ungrammaticalness of avɨn voḷakk
ida.ne; the grammatical form is avɨn^1 voḷag^2 ida.ne^3 'He^1
is^3 inside^2', or avɨn^1 voḷak^2 ho.da^3 'He^1 went^3 in^2' (= He
went to-in).

Top (33):   Po 2 ⎰g ⎱   ====⟹   Po 2
                   ⎱al⎰

With the non-locatives the dative and the locative case-
endings are optional.

aɐci·g ho·gidane   He has gone out (though idio-
aɐce·   matically, the first means with
                      with regard to children, that the
                      child has answered a major call
                      of nature·)

Po₁   ----→   hora ⎫   outside

                keḷa ⎬ ge   under, below

                oḷa ⎭   inside

                me·lᵒe   on, above

                · · ·

Po₂   ----→   a·ce   beyond, out there

                i·ce   on this side

                jate   together with

                hatra   near (cf note on p·137)

                · · ·

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N_{Things}   ----→

avɨsti	medicine
angi	shirt
bḷeˑd̪	blade
baṇṇa	color
baṭṭe	cloth, clothes
baˑgal	door
bukk	book
beˑr	root
bombe	doll
buˑd̪s	boots
capli	sandals
caˑk	pen-knife
danta	ivory
doˑse	pan-cake
dimb	pillow
ele	leaf
gaˑd̪i	cart
goˑd̪e	wall
geˑṭ	gate
halva	a sweet dish
haˑsge	bed
haˑḷe	page
haṇṇ	fruit
huˑv̇	flower
idḷi	steamed cake
iṭge	brick
jileˑbi	sweet dish
kiṭɨki	window
kaˑr	car

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N_{Things} $\longrightarrow$	ko·ṭ	coat
	koḍe	umbrella
	kombe	branch
	ḳatti	knife
	ka·gada	paper
	kurci	chair
	la·ḷa	horseshoe
	ma·tre	pill
	mane	house
	mara	tree
	me·j	table
	manca	cot
	nakṣatra	star
	ne·gɨl	plough
	pils	pills
	penn	pen
	pinn	pin
	pustaka	book
	pa·nɨka	sweet drink
	rayl	train
	se·r	the measuring vessel
	se·tve	bridge
	saykall	bicycle
	tam(bø̃ge	vessel
	ṭe·r	god's chariot
	tiṇḍi	snacks
	N_{col}	Nouns of color
	N_{co}	Counter nouns
	•••	

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Tob (30): $NP\hat{\ }k + Ncol\hat{\ }Pr_1\hat{\ }k$ $====\Rightarrow$ $NP\hat{\ }n + Ncol\hat{\ }n$

Ncol   ----→   ǩapp   black
                   biḷi   white
                   hasɨr   green
                   haḷɨdi   yellow
                   ǩemp   red
                   ni·li   blue
                   ...

Nouns of color, though normally neuter nouns, may be
used with other nouns also, singular as well as plural,
like Ndes (cf· List 25)·

    a· hudɨgi[1] bahɨla kappu[2]   That girl[1] (is) very dark.[2]

But if nominalized like other adjectives, it is restricted
to neuters only·

    * avnu kapp^avnu $====\Rightarrow$ adu[1] kapdu[2]

                                      That[1] (is) a black one.[2]

As a noun, of course, it may be nominalized after it has
taken a genitive:

    avnu[1] biḷi·vnu[2]   He[1] (is) a white man[2]
                                   ('a man of white color'), like
                                   mane·vnu 'man of the house'·

We have not eliminated adjectives before Ncol's; nor Ncol's
as adjectives before Ncol's as nouns:

$$biḷi.^1 \; has\pm ru^2 \qquad\qquad a \; white^1 \; green^2$$
$$saŋ^1 \; has\pm ru^2 \qquad\qquad a \; small^1 \; green^2$$

The former would mean 'a whitish green', the latter,
'a small patch of green' in certain contexts.

Nco ----→   camaca   spoon(ful)

                ga·ḍi   cart(load)

                hiḍi   fist(ful)

                ma·dɨri   sort, variety

                taraha   kind of

                N$_{me}$ Nouns of measures and
                                    weights

                ...

All these words are counters as well as nouns descriptive
of objects like spoons and carts in their own right.
Names of all sorts of containers like lo·ṭa 'cup', ṭabbu
'tub', ru·mu 'room', etc. can obviously be included, as
easily as carriages of various sorts, like ṭreynu 'train'.

Nani ---→

a·ne		elephant
a·ḍ		goat
bekk9		cat
cigɨṭa		flea
cirte		leopard
ciṭṭe		butterfly
emme		buffalo
gubbacci		sparrow
gedl		termite
heṇṭe·godda		big ant (Heṇṭe·godda= chameleon)
gu·be	mari	owl
has		cow
ḥuli		tiger
		kinds of snake
ke·re		tank
go·di na·gɨr	ha·vu	yellow cobra snake
hasɨr		green
heb		big (python)
hul		worm
ḥalli		lizard
irɨve		ant
jigɨṇe		leech
ḳappe		frog
ka·ge		crow

⟨ gaṇḍ / heṇṇ ⟩

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kogle	koil, a songbird
kokre	stork, crane
kudɨre	horse
kuri	sheep
mosɨḷe	crocodile
noŋa	fly
na·yi	dog
o·tikaeta	chameleon
pa·rva·ḷa	pigeon
simha	lion
tigɨŋe	bug

Tob (31):   heb^ha·v   =====⟹   hebba·v

Tob (32):   gaŋd̥^ a·d̥ ⎤   ṭagɨr ⎤   he-goat
               emme ⎪   =====⟹   koŋa ⎪   he-buffalo
               has ⎪   {ett ⎪   {ox
               ko·ḷi⎦ᵢ   {ho·ri ⎦   {stud-bull
                              hunja⎦ᵢ   cock

Nani are nouns that are names of animals. The sex is
shown by the addition of gaŋḍu (male) and heŋŋu (female);
mari (the young of the animal) is optionally added; when
it is added, the phrase means 'the young of…'.

Some animal names like a·d̥u etc. have special names for the
males. They are given by the last Tob.

Length

N_{Me} ----→

aḍi	foot
a˙ḷ	'fathom' 'man's height'
angɨla	inch
farlaɨng	furlong
gaja	yard
ge˙ṇ	span
inc	inch
ma˙r	'two arms' length'
moḷa	cubit
mayli	mile

Weight

ma˙ṇa	a mound
pa˙v	a small measure
pance˙r	five 'seers'

$\left\langle \begin{array}{l} aḍi˙ \\ sava˙ \end{array} \right\rangle$ se˙r

half   'seer'
quarter

Quantity

koḷaga	'bushel'
pa˙v	1/4 'seer'
se˙r	'seer'
mora	'a winnowing fan'

$N_{Me} \quad ----\rightarrow$ <u>Counts</u>

agɨḷ (anna)   'a grain (of cooked rice)'

guṭɨk   'a drink (of water)'

kaṭṭ   'a bundle'

kavaḷge   'a sheaf' (of betel)

Derivation:

1. $\text{Nabs} \mathbin{\widehat{}} d$ ----> $\begin{cases} \text{Nabs} - S_1 \\ \text{Nabs} - S_2 \mathbin{\widehat{}} \text{ka·r}^{\text{o}}\text{a} \\ \text{Na 1234} \\ V_R \\ \text{Vd}\mathbin{\widehat{}}\text{ike} \end{cases}$

2. V_d ----> $\left.\begin{cases} \text{Nabs} - S_1 \\ \text{Nabs} - S_2 \text{ ka r r}^{\text{o}}\text{a} \\ \text{Imit}_1 \end{cases}\right\}\mathbin{\widehat{}}s$ Derived verbs Cf. List 12

3. $N \mathbin{\widehat{}} f_d$ ----> $\begin{cases} N \text{ mf} \\ N \text{ md} \end{cases} \mathbin{\widehat{}}i$ Derived feminines

4. $N \mathbin{\widehat{}} m_d$ ----> $\begin{cases} \text{ha·va·ḍɨg}^{\text{o}}\text{a} \\ \text{hu·va·ḍɨg}^{\text{o}}\text{a} \\ \text{Na}_1 \mathbin{\widehat{}} \text{ig}^{\text{o}}\text{a} \\ \text{Na}_2 \mathbin{\widehat{}} \text{vant}^{\text{o}}\text{a} \\ \text{śri·mant}^{\text{o}}\text{a} \\ \text{Na}_3 \mathbin{\widehat{}} \text{ga·r}^{\text{o}}\text{a} \\ \text{baḷega·r}^{\text{o}}\text{a} \end{cases}$ Derived masculines

5. a) $\left.\begin{matrix} \text{ha·va·ḍɨg}^{\text{o}}\text{a} \\ \text{hu·va·ḍɨg}^{\text{o}}\text{a} \\ \text{Na}_1 \text{ ig}^{\text{o}}\text{a} \end{matrix}\right\} \mathbin{\widehat{}} i$ ----> $\left.\begin{matrix} \text{ha·va·ḍɨg}^{\text{o}}\text{a} \\ \text{hu·va·ḍɨg}^{\text{o}}\text{a} \\ \text{Na}_1 \text{ ig}^{\text{o}}\text{a} \end{matrix}\right\} \mathbin{\widehat{}} \text{ittu}$ A Feminine Suffix

b) $\left.\begin{array}{l} Na_2{}^\wedge vant^o a \\ \acute{s}ri \cdot mant^o a \end{array}\right\}{}^\wedge i$ ----> $Na_2 \ vant^o a$ e Another
$\acute{s}ri \cdot mant^o a$ Feminine
Suffix

6. Top (34): $Na_3{}^\wedge ga \cdot r^o a{}^\wedge i$ ====> $Na_3{}^\wedge ga \cdot ti$ Alternative
Forms

7. Na_4 ---->$\left\{\begin{array}{l}\left.\begin{array}{l} ad \\ N{}^\wedge m \\ N{}^\wedge m_d \\ Nani \end{array}\right\}{}^\wedge tana \\ \left. X \ \begin{array}{l} s \\ vant^o a \end{array}\right\}{}^\wedge ike \\ V_{ke} \\ Na_5 \end{array}\right.$ Source: L. 13

Suffixes for
Abstract Nouns
Source: L. 32

Cf. Vb List

These rules offer lists and orders of transformative suffixes—

mainly noun-making suffixes.

As the rules are self-explanatory, and as the lists that
follow have notes appended, we add no general note here.
This part can be placed in the Descriptive Etymology
Section, but is placed here with the lists for convenience.

Nabs-S_1 ----→

a·lo·c^{o}ne	thought
abbər^{o}a I	roar
cal^{o}ne	movement
g^{h}arj^{o}ne I	roar (of lion, etc.)
kannəd^{o}a	kannada (kannaḍsu=to translate into Ka.)
mantr^{o}a	magic chant
po·ṣ^{o}ne	nurture
sa·d^{ha}ne	achievement
su·c^{o}ne	hint, suggestion
yoc^{o}ne	thought
mo·h^{o}a	infatuation, desire
pri·t^{o}i	love

Nabs-$S_1\hat{\ }$ ka·r^{o}a

Nabs-S_2 ----→

namas	(ka·ra)	salutation
puras		recognition
tiras		rejection, scorn
bala·t		coercion
d^{h}ik		defiance
...		

These two lists of Sanskritic forms are set up because they
are both verbalized by the addition of su, very pro-
ductively: yoc^{o}ne$\hat{\ }$su -→ yo·csu 'to think'. ^{o} is a mor-
phophoneme that indicates deletion of the following sequence
before any X; . indicates the deletion of · under the
same conditions: namas$\hat{\ }$ka·r^{o}a$\hat{\ }$su --→ namaskarsu 'to
salute, offer greetings'.

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Tob (33): $X + NP\char`^an + V\ I\char`^s\char`^k \implies X + V\char`^is\char`^k$

The verbs marked I in the Nabs-stem do not take objects.
This rule is placed here for convenient reference, though
it belongs with the verbs.

Nal ----→

- ga·ṇa — oil-press
- ke·ḍ — evil
- kannaḍa — kannada
- paṭṭaṇa — town
- okkɨl — tenancy
- vo·d — reading, learning
- ...

Tob (34): kannaḍa^iga^itti ----→ kannaḍɨti

a Kannada-speaking woman

These neuter nouns are made into masculine agentives by the affixation of ^iga, into feminines by the further addition of itti, except in the case kannaḍa^iga.

e·g·   ga·ṇɨga   oil-man

ga·ṇɨgitti   oil-woman

With regard to ke·ḍiga being feminized into ke·ḍɨgitti, it sounds plausible but the writer hasn't heard it; as it is plausible, it is left in, as elsewhere.

Na2 --.--> $\Big\{$ budd^{h}i   intellect

d^{h}ayrya   courage

ma·na   self-respect, decency

śakti   strength

...

Na2 consists mostly of Sanskrit words that are rendered masc agentives by the addition of vanta. It may be noted here that there are several alternative ways of doing this; a word like śakti will therefore appear in this as well as in the Nma list, yielding śakta as well as śaktɨvanta.

Na3 ----→		
	a·ṭa	play
	ma·ṭa	magic
	ma·t	word, speech
	kelɨsa	work
	baɬe	bangle
	...	

The abstract nouns take the agentive suffix ga·ra·
Note that 'bangle' takes the same suffix as any abstract
nouns, though it is not an abstract.

Na5 ----→ beḷ°i ⎫ ^e   (to grow)   produce,crop
            kar°i ⎬   (to call)   call, invitation
            hor   ⎬   (to bear)   burden
            koḷ°i ⎭   (to rot)   dirt

            beḷ°i ⎫ ^ ꞉vange (to grow)   growth
            mer°i ⎬   (to display)   procession
            bar°i ⎭   (to write)   writing,
                                               composition

            tin°n ⎫ ^꞉sṳ   (to eat)   eatable, snack
            mun°i ⎬   (to be angry)   anger
            beḷ°i ⎭   (to grow)   produce, crop

            kuṇ°i ⎫ ^꞉ta   (to dance)   dance
            kaḍ°i ⎬   (to itch)   itch
            baḍ°i ⎬   (to beat)   a beating
            hoḍ°i ⎭   (to beat)   blows

            gel°i ⎫ ^꞉vᵤ   (to win)   happiness,
                                               liveliness
                  °
            mar i ⎬   (to forget)   forgetfulness
            sa.°yi ⎬   (to die)   death
            ka.°yi ⎬   (to heat)   warmth, heat
            ki.   ⎬   (to suppurate) pus
            biḍ   ⎭   (to leave)   leisure

            naḍ°i ⎫ ^ ꞉te   (to behave)   behaviour
            aḷ°i ⎭   (to measure)   a measure

            nen°i ⎫ ^ ꞉pᵤ   (to remember)   memory
            hoḷ°i ⎭   (to shine)   sheen
              ...

Na5 is a class of abstract nouns that are formed by the
affixation of several affixes (e, ±vange, etc.) to verbs.
^{o} is a morphophoneme that will delete the phonemes that
follow it, before any X. The meanings of the verbs are
given in parenthesis. The Tob yields the allomorphs.

In all these rules, only those Sanskrit forms and morpho-
phonemics that are productive in Kannada are treated. The
large number of learned words used in certain discourses
or contexts like pavro·hitya (from puro·hita 'priest')
'the profession of being a priest', or da·śarat^{h}i (from
the name Dasarat^{h}a) 'son of Dasaratha' are not taken into
account; but the verbalization of yo·cne, etc. by the
addition of su is.

Source: Derivation

Nma ----→ bo·ḷ baldness

b^{h}akt^{o}i devotion

hucc madness

ki̬v^{o}i ear (kivɨḍa=a deaf man)

mu·g nose (mu·ga =a mute man)

mukt^{o}i salvation

śakt^{o}i strength

telɨg Telugu, a language

Tob (35): ki̬v^{o}i^a ----→ ki̬vɨḍa

Such nouns as the above are rendered masculine agentive
nouns by the addition of a· bo·ḷ^a is a bald man· The
word for a deaf man is derived from kivi, but by the
addition of ḍa·

Tob (36):

1.   N^n^a^g   ----→   N^n^g

2. a)   N^n-a⎤ ^ g   ----→   N^n-a⎤ ^ kk   K. 11,12
            Pr$_{123}$ ⎟   Pr$_{123}$ ⎟   List 7
            e·n ⎦$_i$ e·n ⎦$_i$

   b)   e·n^kk   ----→   ya·ta^kk   'Why'
                                        ya·ke

1.   g is the dative suffix. Neuter nouns do not take   a
     the genitive before their datives.

              na·nu   'g'   ta·yi   'mother'
              nange   'to me'   ta·yi·ge   'to mother'

2.a) N^n's with the a-endings (N n-a), neuter interrogative
     ye·n, and neuter Pr$_{123}$'s take   kk.

              mara   'tree'   hasu   'cow'
              marakke   'to the tree' hasu·ge   'to the cow'

   b) ye·n has an allomorph ya·ta before   kk.

                                                                191

3.
$$
\begin{bmatrix}
N^{\wedge}f\text{-}a \\
N^{\wedge}n\text{-}a \\
Nu \\
Pr_{123}{}^{\wedge}n \\
Pr_{123}{}^{\wedge}ṣṭ \\
N^{\wedge}n\text{-}C
\end{bmatrix}_i
{}^{\wedge}a
\ ====\!\Rightarrow\
\begin{bmatrix}
N^{\wedge}f\ {}^{\wedge}an \\
N^{\wedge}n\text{-}aḍ \\
Nu \\
Pr_{123}{}^{\wedge}n \\
Pr_{123}{}^{\wedge}ṣṭ \\
N^{\wedge}n\text{-}C\ {}^{\wedge}\ in
\end{bmatrix}_i
$$

K. 11,12,
22

Top 10

(Note: right bracket group $\left.\begin{matrix}Nu\\Pr_{123}{}^{\wedge}n\\Pr_{123}{}^{\wedge}ṣṭ\end{matrix}\right\}$ ar)
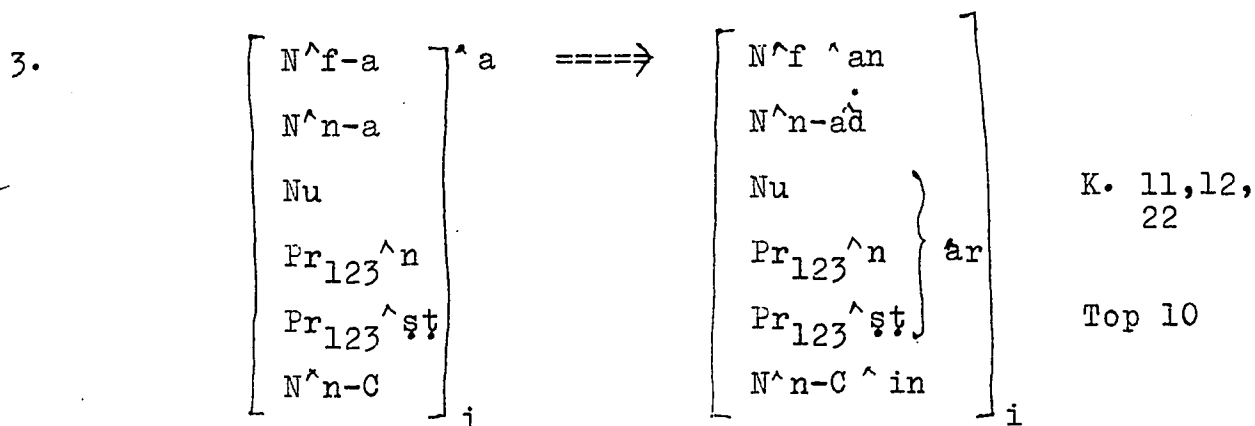
$^\wedge$a is the genitive suffix.

1) All feminine nouns ending in -a, and all masculine nouns, take the allomorph an. E.g., ra·man 'Rama's', si·tan 'Si·ta's'.

2) All neuter nouns ending in -a take d as in marad 'of the tree'.

3) All numerals and neuter $Pr_{123}{}^{\wedge}n$ and $Pr_{123}{}^{\wedge}ṣṭu$, take ar: adar 'its'.

4) All neuter N's with consonant endings take in: ko·l̂in 'of the stick'.

All the rest of the allomorphs are derived by phonological rules:

     mane $^\wedge$ a   ----$\rightarrow$ mane· 'of the house'

(By later phonological rule, Top 59: :

     Si·ta$^\wedge$an   ====$\Rightarrow$ si·ta·n;

both si·ta· and si·tan are possible·)
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Tob (36):

4. $\bar{N}_x - \begin{bmatrix} i \\ e \end{bmatrix} {}^\wedge al$ $====\!\Rightarrow$ $N_x - \begin{bmatrix} i \\ e \end{bmatrix} {}^\wedge l$

All nouns (N_x) ending in the front vowels i and e take
the locative allomorph ^l. As elsewhere the front vowels
are lengthened before any suffix.

mane·l[1] ida·ne[2]   He is[2] at home[1]

haḷḷi·l[1] maḷe·bittu[3]   In the village[1] rain[2] fell[3]

                             ('it rained in the village')

Tob (36):

5.

$$X \char94 \begin{bmatrix} l \\ al \\ g \\ kk \\ an \end{bmatrix} \begin{Bmatrix} \# \\ / \end{Bmatrix} \quad ====\!\!> \quad X \char94 \begin{bmatrix} li \\ alli \\ ge \\ kke \\ anna \end{bmatrix} \begin{Bmatrix} \# \\ / \end{Bmatrix}$$

This rule gives the pre-junctural forms of l~al (locative), g~kk (dative allomorphs), an (accusatives). a (genitive) never occurs finally without a nominalizing gender-marker, except probably in the rare form of the retort-question, 'ya·ra', 'Whose, did you say?' In the absence of any intensive intonation-studies of Kannada (either here or elsewhere) the junctures here written in have to be taken for granted. In our examples we have used only / and #.

Tob (36):
(cont.)
6.

$$\begin{bmatrix} na \cdot n \\ ni \cdot n \\ na \cdot v \\ ni \cdot v \\ ta \cdot n \\ ta \cdot v_{12} \end{bmatrix}_i \quad {}^{\wedge}a \quad ====\!\!\Rightarrow \quad \begin{bmatrix} nanna \\ ninna \\ namma \\ nimma \\ tanna \\ tamma_{12} \end{bmatrix}_i$$
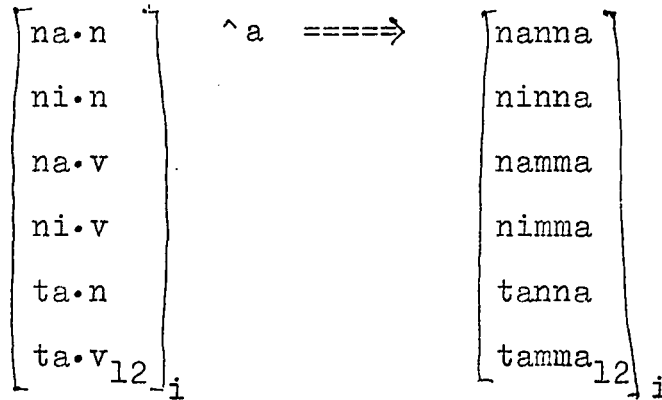
7. $XNNa^{\wedge}ge$ $====\!\!\Rightarrow$ $XNa^{\wedge}ge$

The first, second and reflexive personal pronouns form

a pattern in the genitive as shown above. When the dative

g is added to the genitive forms, one of the nasals is

reduced, as shown by the second rule.

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Tob (37) a $X \hat{\ } \underset{\vee}{k}$ ====>   X g

       b $X \underset{\sim}{.} \ Y \hat{\ } Z$ ====> XYZ

Subscripted $\vee$ means that the phoneme /k/ will get voiced
when a morpheme is prefixed. Subscripted $\sim$ means that
the vowel will be shortened when morphemes are suffixed.

    hosa^ḳannaḍa   ====>   hosgannaḍa   'modern Kannada'

    namɨska. r°a^su   ====> namɨskarsu   'to greet'

       (The loss of a in both instances is by Tob 59)

lists V_t1

V_t1 ---->

K	add	immerse
K	ag°i	dig
K	al°i	measure
	ann	say
	app	embrace
K	ar°i	grind
	aṭṭ	drive away
K	a˙ḷ	rule, reign
K H	badla˙yɨs	change
K	baḍ°i	beat
K	baḍɨs	serve (food)
	bay°yi	scold
K	ba˙c	comb, rake in
	ba˙rɨs	beat, play an instrument
K	biḍ*	leave, let go
K H	big°i	tighten, tie; lash
	bi˙r	scatter, throw (stone)
K	$bi˙s_2$	mill (flour)
	$bi˙s_3$	throw (stone, etc.)
K	bitt	sow
	ca˙c	stretch out
K	cecc	beat up
	ci˙p	suck

K	cucc	prick
K	cuna˙ys	elect
	daba˙ys	browbeat
	dabb	push away
H	da˙ṭ	cross
K	do˙c	plunder
K	ebbɨs	raise, waken
K	eḷ°i	pull
	eŋɨs	count, imagine
	es°i	throw
H	e˙r	climb
K	gi˙c	scribble
K	gi˙r	draw lines
K	goṙ	rake, scour
K Hn	gudɨa	sweep
K	hacc	smear
K Hn	har°i	tear
Hn	haraḍ	spread
K	ha˙k	put
K	haɫs	spread (cloth)

K	hecc$_2$	slice
K Hn	heŋ^{o}i	weave, plait
K	hett̥	hammer in
K	he˙ḷ	tell
	he˙r	burden
K	hiḍi	hold, catch
	hi˙r	suck in (liquids)
	hoḍ^{o}i	cover (with cloth, etc.)
	hoḍ^{o}i	beat
	hog*	enter
	hogaḷ	praise
K	hol^{o}i	sew
	hor*	bear a burden
K	hoy^{o}yi	pour (liquids)
	ho˙ḷ	resemble
K	hur^{o}i	roast
	hutt̥	be born
K	hu˙^{o}ḷ~hu˙ḷ	bury
	ir̥^{o}i	stab
K	jo˙ḍis	put together, arrange
K	kacc	bite (into)
K	kad^{o}i	steal

K Hn	kaḏ°i	fell[1] (tree), bite[2]
	kakk	vomit
K Hn	kalak	stir
K Hn	kalas	mix
K	kaḷɨs	send
K	kar°i[1]	fry
	kar°i[2]	call, invite
	ka˙ḏ	vex
Hn Bn	ka˙ṇ	see
	ka˙r	throw up
	ker°i	scratch
K Hn	kett	carve
Bn	ke˙ḷ	hear, ask
	kol^{n}l	kill
	koḷ^{n}ḷ	buy
K Hn	koy°yi	cut
	kuḏ°i	drink
	kukk	bring down violently
K Hn	kuṭṭ	pound
	ku˙g[2]	call (someone)
K Hn	maḏɨs	fold
	NP_x^ma˙ḏ[1]	'make' as verbalizer (see Note)
K	ma˙ḏ	do, make
K	ma˙r	sell

	me˙*yi	graze
H	mi˙r$_2$	outdo, disobey, go beyond
K Hn	mucc	cover
	muᵬᵵ	touch
	mu˙s	smell
K	na˙d	knead
	namb	believe, trust
K Hn	neḍ*	plant
H	neg°i	leap
	nekk	lick
	nen°i	remember
	no˙ḍ	see
	od°i	kick
K Hn	oḍ°i	break
Hn	opp	agree
K	ott	press
K	oras	wipe

	parac	claw, scratch (someone)
K	po˙nɨs	thread
	sa˙r	broadcast
K	sa˙rɨs	wash the floor
K Hn	se⁺d	draw (water)
H	se˙r	reach
K	so˙s	filter, strain
K Hn	sul^{o}i	skin, exploit
K Hn	sur^{o}i	pour
	tabb	embrace
Hn	tapp	mistake, miss
K Hn	tar^{o}i	shave off
K	tar^n	bring
	ta˙g~ta˙k	strike against
	ta˙ḷ	bear, be patient with

K H	teg^{o}i	take away, open
K	tidd	correct
K	tikk	rub
Hn	tinn	eat
Hn Bn	til̡^{o}i	know
	tiv^{o}i	elbow
K	ti˙d̡	rub (against)
K Hn Bn	tumb	fill
K	tu˙g	weight
K	tu˙r$_1$	winnow
	ugɨl̡	spit
K	ujj	rub

V_t2 ----->

	her*	give birth
K	id*	place, keep
	kal^{o}i	learn
K Hn Bn	ki˙*ḷ	pull out
	kod*	give
	pad*	undergo
H	mar^{o}i	forget
K H	sud*	burn
	ter*	give unwillingly
	ud*	wear
K	uḷ*	plough

$V_{in}{}^1$ ----->

H	alla˙ḍ	oscillate, shake
	aṇṭ	stick to
	arac	howl
	a˄ḍ	play, speak
H, Hn	a˙ᵒg	become
H	a˙r	cool

H B	badɨk	live, be alive
H	bagg	bend
	bar^n	come
	ba˙ḍ	wither
	ba˙ḷ	live

H	becc	be startled, to 'start'
H	bevar	sweat
Hn B	beḷᵒi	grow
H	be˙^{n}yi	cook, burn
N_2	bi˙*ḷ	fall (Cf. Notes)
	bi˄s	blow (wind)

	e˚d	gasp, pant
B	e˙∗ḷ	rise
	goṇag	grumble
	han°i	sprinkle, drizzle
H	har°i	tear
H	has°i	hunger, be hungry
	ha˄ḍ	sing
Hn B	ha˙r	jump, fly
H	hecc	increase
H	hedar	fear, be frightened
	he˚s	flinch (from)
	horaḷ	turn (on one's side)
B	ho°.g	go
	hu˚s	break wind

	ir*	be
	i·j	swim
Hn	jarɨg	move a little, happen
Hn	ja·r	slide
Hn	kadal	stir
	ka·ᵒyi₁	wait
Hn	ka·ᵒyi₂	get warm
	kemm	cough
	kirɨc	shout loudly
Hn	kudɨr	get better, liven up
Hn	kugg	decrease
	ku·g	cry, shout, call
Hn	malag	lie down
Hn	ma·s	tarnish
Hn Bn	mugᵒi	finish

	na˙c	be shy
H	na˙r	reek
H	oṇag	dry
	sa˙l	suffice
	si˙ᵒn	sneeze
H	so˙r	leak
	ta˙ḷ	wait
	te˙l	float
H	tirɨg	turn
H	uḷᵒi	remain behind
H	urᵒi	burn
	urɨḷ	roll

$V_{in}2$ ---->

	aḷ*	weep
H	bal°i	ripen, harden, age
H	beva°r	sweat
	he·°l	defecate
HB	horaḍ*	go, start
H	keḍ*	spoil
H	koḷ°i	rot
H	ku·°r	sit
Hn Bn	mig*	remain, left over
	moḷ°i	sprout
	nag*	laugh
H	nar°i	gray (hair)

$V_{in}2$

Hn	ner^{o}i	fill
Hn	nil^{n}l	stand, stop
H	sa^{o}yi	die
H	sig*	be found
Hn	to˙c	occur (thought)
Bn	to˙r	seem
H Bn	ukk	boil over

$V_k \quad \dashrightarrow$

ba·ɬ	live, endure
he·ɬ	say
kal^{o}i	learn
ke·ɬ	listen, request, ask
ko·r	entreat
namb	believe
...	
Vg	

V_k's are verbs that take ike to yield abstract nouns.

Tob (37):   Vg^ike   ====⟩   Vg^ige

Vg   ----⟩   her*   give birth to

                     hol°i   sew

                     sul°i   extract (tax, etc.)

                     ter*   give unwillingly (tax)

                     vopp   assent

                     ...

Vg's are verbs that take ige to yield abstract verbs.

V_R ----⟶

arac	scream
bad$\pm$k	live
ba·l	live
e·d	gasp
horal	turn (on one's side)
hu·s	fart, to break wind
i·j	swim
kemm	cough
ku·g	call
ukk	boil over
ur$\pm$l	roll
...	

These intransitive verbs have the same shapes as the abstract nouns derived from them. The latter may be used as cognate objects. All these are already listed in V_{in}'s.

Top (35):   NP^k + $\begin{bmatrix} ha·r \\ ha·ḍ \\ vo·ḍ \\ ... \end{bmatrix}_i$ ^k   ====⟹   NP^k + vond + $\begin{bmatrix} \{mayli\} + ha·r \\ ha·r \\ \{ki·rtne\} + ha·ḍ \\ ha·ḍ \\ \{vo·ṭa\} + vo·ḍ \\ mayli \\ farla·ng \\ ... \end{bmatrix}_i$ ^k

Some intransitive verbs can take cognate objects (V_R),
the nouns often directly derivable from the verbs themselves:
ha·ḍu (song), ha·ru (jump), etc. Cf. Descriptive Etymology.
The objects may be, by extension, other words with the same
semantic referent or descriptive members of the same seman-
tic class. For instance, ha·ḍu 'song' can be substituted
by 'ki·rtne, varṇa, sa·ngu, padya' all of them different
kinds of song or singable items.

Several of the transitive verbs also may have cognate
objects rarely as the second objects: appu 'embrace',
addu 'immerse', baḍi 'beat', etc. (avɨnna[1] vond[2] addu[3]
adda[4], *(He) ducked[4] him[1] a[2] duck[3]).

Restrictions on the kinds of objects that are usually taken
by each verb are disregarded. For instance, one may find
that usually 'tinnu' (to eat) does not take mane (house),
as in avḷu mane tindlu 'She ate the house'. As elsewhere
in these pages, myth, legend, fairytale, poetry, humor,
proverb and paradox and other imaginative explorations of
collocational possibilities are envisaged and so the rules
are left open and free in this regard. Here are a few
examples of what might seem unusual selections of lexical
items, which are very common in Kannada:

magu[1] mane·n[2] tintu[3]
The child[1] ate up[3] the house[2]

magu[1] ta·yi·n[2] nunkoṇtu[3]
The child[1] devoured[3] the mother[2] (i.e. the child's birth was
    unlucky, and the mother died, or the house broke up)

avsardal[1] ajji[2] maynerïdlu[3]
All in a hurry,[1] the grandmother[2] had her first periods[3]
    (proverb on the inconguous inconveniences of life)

sra·vaṇdalli[1] kurïḍa·davïnge[2] u·rella[3] haege[4]
To the man who goes blind[2] in the rainy months[1] the place[3]
    is green[4] all over.[3] (proverb)

Tob (38): $\text{NP}^k + \begin{bmatrix} \text{bi·s}_1 \\ \text{han}^o_i \\ \text{sa·l} \\ \cdots \end{bmatrix}_i^{\wedge k} \ ====\!\!\Rightarrow\ \text{NP}^n + \begin{bmatrix} \text{bi·s}_1 \\ \text{han}^o_i \\ \text{sa·l} \\ \cdots \end{bmatrix}_i^{\wedge n}$

Some intransitive verbs like bi·su 'blow', hani 'sprinkle, drizzle', sa·lu 'suffice' are usually compatible only with neuter nouns.   The first two are also very limited in their collocational possibilities, except in experimental writing.

ga·ḷi[1] bi·sɨtte[2]	The wind[1] blows.[2]
maḷe[1] hanyɨtte[2]	The rain[1] drizzles.[2]
haṇa[1] sa·lɨtte	The money[1] will suffice.[2]

pv   ----->   { biḍ*
                         koḍ*
                         kol^n_l
                         ho·^{o}g
                         bar^n }

The above are post-verbs or 'aspect-markers'. The rough
glosses for these follow. As these are also free forms
in themselves, their glosses when 'free' are also given.
ho·g̣u 'to go' and bar 'to come' are added here because
they act as emphatic post-verbs (cf. notes on them) on a
restricted number of verbs (p. 222, 223).

Note also that biḍu the post-verb often differs phonologically
(in colloquial speech) from biḍu. This is indiaated by
the following Top.

Top (36):   X^ɨ^biḍ* Y   =====>   X^ɨ^bɨḍ* Y

Gloss of free forms:

| "to give" | koḍu | benefactive | avnɨg[1] ma·ḍkoḍu[2]
"do it[2] for him[1] |
| "to buy, get" | kolḷu | reflexive, etc. | avnu[1] aḍɨge[2] ma·ḍkoṇda[3]
He[1] made[3] the meal[2]
for himself[3] 216 |

"to leave,   bɨd̰u   completive   ma·d̰bɨ̰ṭṭa   he did

let go"   it decisively

"to happen"   a·gu   completive   ma·d̰a·ytu^2 (He) has

finished^2 doing^1 (it)

"to be"   iru   perfect   ma·d̰ida·ne   He has

done it

iru and a·gu are 'auxiliaries'; like post-verbs they take

past-participial (^i) stems. But as seen in kernel 5

their positional privileges are different from other post-

verbs.

ma·d̰biṭta·ytu^2 (He) has finished^1 doing (it)^2

completely^1

ma·d̰koṭbiṭt^3 ida·ne^4 He has finished^3 doing^1 (it)

for him^2

An alternative solution for deriving post-verbs would be
via the Top which generates Vb^i + VP^k (Adverbial
Participles + Verb), and by a further Top change the
juncture to $^\wedge$, when VF's are from the above list of post-
verbs (koḷḷu, koḍu, etc.):

$$\text{Top} \qquad NP^k \ + \ VB^i \begin{Bmatrix} / \\ + \end{Bmatrix} \begin{bmatrix} ko\d{d}^* \\ ko\d{l}^n\d{l} \\ etc. \end{bmatrix}_j \qquad \Longrightarrow$$

$$NP^k \ + \ VB^\wedge \pm^\wedge \begin{bmatrix} ko\d{d}^* \\ ko\d{l}^n\d{l} \\ etc. \end{bmatrix}_j$$

Tob (39):

$$\begin{bmatrix} \text{Vint} \\ \text{Vmo} \\ \text{ann} \\ \text{app} \\ \text{bay}^{\text{o}}\text{yi} \\ \text{koḍ}^{*} \\ \text{kal}^{\text{o}}\text{i} \\ \text{mar}^{\text{o}}\text{i} \\ \text{N paḍ}^{*} \\ \text{tinn} \\ \text{tiḷ}^{\text{o}}\text{i} \\ \text{tiv}^{\text{o}}\text{i} \\ \text{ug}\pm\text{l} \end{bmatrix}_i \quad {}^{\wedge}\text{i}^{\wedge}\text{koḍ}^{*} \quad ====\!\!\Rightarrow \quad \begin{bmatrix} \text{Vint} \\ \text{-do-} \end{bmatrix}_i$$

Intransitive verbs, verbs of motion and some transitive verbs listed in the rule above cannot take koḍu as the post-verb k.5(p.11, L.48). But they may enter a verb phrase with koḍu as the second member:

tindu $\begin{Bmatrix} / \\ + \end{Bmatrix}$ koḍu   Eat (some) and give (it)

Tob (40): $koḷ^n ḷ$ ^ i^ $koḷ^n$ ḷ   ====> $koḷ^n ḷ$

Kernel 5 , allows **koḷḷu** to follow itself, which is
eliminated here. All the privileges of occurrence are
charted below:

	biḍu	koḍu	koḷḷu
biḍu	+	+	+
koḍu	+	−	+
koḷḷu	+	−	−
ba·	+	−	−
ho·gu	+	−	−

Other restrictions are given in the following rules.
Other verbs that act occasionally as post-verbs are
mentioned and discussed briefly in the notes that follow.

ba· and ho·gu as post-verbs cannot follow any post-verb
(cf. kernel 5).

Top (37):NP k + NP k ^an + $\begin{bmatrix} \text{baḍ}^o\text{i} \\ \text{tumb} \\ \cdots \end{bmatrix}_i$ koḷ^{n}ḷ^k   ====⟹

NP k + $\begin{bmatrix} \text{baḍ}^o\text{i} \\ \text{tumb} \\ \cdots \end{bmatrix}_i$ ^ koḷ^{n}ḷ^k

The addition of koḷḷu intransitivizes some transitive verbs.

avnu[1] ni·r(an)[2] tum⟨b⟩ko·ta·ne[3]
He[1] fills[3] (X) with water[2] for himself.[3]

baketṇal[4] ni·r[5] tum⟨b⟩koḷḷutte[6]
The water[5] fills[6] in the bucket.[4]

Tob (41): $V\hat{}i\hat{}\begin{bmatrix} koḍ* \\ ho.{}^{o}g \\ bar^{n} \end{bmatrix}_{i}$ $====\Rightarrow$ $V\hat{}i + \begin{bmatrix} koḍ* \\ ho.{}^{o}g \\ bar^{n} \end{bmatrix}_{i}$

All verbs unmarked in the list by one of the capitals K,
B, or H, do not usually take koḍu, ho.gu, ba. as aspect-
markers after the past adverbial participle. They may
however take koḍu, ho.gu, ba. as the finite verb after
them.

avnu mantra.n and^koṭṭa   ----→   avnu[1] mantra.n[2] andu[3] + koṭṭa[4]

He,[1] having said[2] the chant,[3] gave (it).[4]

But,

avnu[1] mantra.n[2] he.ḷ koṭṭa[3]   He[1] taught[3] the chant.[2]

Note the semantic shift in the latter: he.ḷ means 'to say'.
Cf. Appendix on similar collocations.

Tob (42):

a)
$$N^k + \begin{bmatrix} Hn \\ Bn \end{bmatrix}_i V^i \, ^{\wedge} \begin{bmatrix} ho \cdot {}^o g \\ bar^n \end{bmatrix}_i \, ^{\wedge} k \quad ====\Rightarrow$$

$$N^n + \begin{bmatrix} Hn \\ Bn \end{bmatrix}_i V^i \, ^{\wedge} \begin{bmatrix} ho \cdot {}^o g \\ bar^n \end{bmatrix}_i \, ^{\wedge} n$$

b)
$$X + \begin{Bmatrix} K \\ H \\ B \end{Bmatrix} V + Y \quad ====\Rightarrow \quad X + V + Y$$

Being unmarked, k implies all the tense possibilities.
The verbs that are marked Hn and Bn in the lists have the
peculiarity of being used only with neuter subjects. As
an earlier rule indicates, any transitive verb in the neuter
can be intransitive and 'impersonal'. The capitals are
removed by the second rule.

* $N^k + ka \imath \eta \, ^{\wedge} d \, ^{\wedge} Hn \ ho \cdot g^k \quad ====\Rightarrow \quad$ (sanni[1] +) $ka \d{n} \d{d} \, ^{\wedge} ho \cdot ytu$[2]

coma[1] set in[2] (with regard to a patient).
kaṇḍu means 'having seen'. Note semantic shift.

*N k + ka$\cdot$ŋ^d^Bn^bar^{n}^k   ====$\Rightarrow$ (ad±r guṇa[1] +) kaŋ(ḍ)bantu[2]

Its virtue[1] became clear.[2]

a·ḍu 'to play' acts as an aspect-marker (post-verb) of
sorts (less productive than koḷḷu, koḍu, etc.) after certain
verbs. Like the other aspect-markers mentioned, this
'idiomatic' shift takes places only after V^i, the past
adverbial participle.   a·ḍuhas the significance of an
intensive, of restless activity, etc. E.g.:

Gloss of verbs			Gloss of collocations
'jump'	negɨd	^ a·ḍu	jump about
'dance'	kuṇɨd		skip around
'snatch, tear'	kitt		tear and maul, etc.
'walk in circle, roam'	sutt		roam about
'call'	ku·g		shouts angrily
'scold'	bayd		scold ceaselessly
'run'	vo·ḍ		run about

After certain object nouns also it is frequent as a
verbalizer of sorts and undergoes semantic shifts, so
that the collocations of N+a·ḍu must be learned as unit-
items:

Object-noun			Collocation
'word'	ma·t	a·ḍu	to chat, to speak
'quarrel'	jagɨ̞la		to quarrel

ba· ('to come') also has special uses, somewhat as in
English 'come to be known', again always in the neuter,
as indicated by the symbol Ba$_n$:

Verb		Collocation
'know'	tiḷɨd bantu	came to be known
'see'	kaṇḍ bantu	came to be seen or
		recognized

In the construction VP^ta· banda, where VP^ta· is a
present adverbial participle, there is a special sense
of iteration·

avnu[1] dina·[2] jarman[3] o·tta·[4] banda[5]
He[1] kept on[5] reading[4] German[3] every day·[2]

ho·gu ('to go') may also be used in a similar sense:

avnu[1] dina·[2] jarman[3] o·tta·°[4] ho·da[5]
He[1] went on[5] reading[4] German[3] daily·[2]

kelsa[1] mugi·ta·[2] bantu[3]
The work[1] began[3] to get finished·[2]
(The work came[3] (to) being finished·[2])

kelsa[1] hecta·[2] ho·ytu·[3]
The work[1] went on[3] increasing·[2]

ba· and ho·gu are also frequently used in construction
with negative adverbial participles, in special uses:

avnu[1]   ma·ḍde·[2]   ho·da[3]
He[1] didn't care[3] to do (it).[2]
(He[1] went[3] without doing it.[2])

haṇa[1] sa·lde·[2]   ho·ytu)[3]
                     bantu }
The money[1] was not sufficient.[2,3]
(The money 'went')[3] without being sufficient.[2])
              'came'}

(Cf· note on sa·lu)

a) bi·ḷu frequently goes with verbs of motion, the collocation meaning "having done X, he fell down."

| slide | ja·r bidda | he slid and fell |
| die | sat bidda | he fell dead |

In some cases it develops special senses:

sa·vra[1] ka·gda[2] band biddide[3]   A thousand[1] letters[2] have piled up.[4]

band[1] biddide[2]   =   having come,[1]has fallen.[2]

avnu[1] nenne[2] negɨd bidda[3]   He[1] 'kicked the bucket'[3] yesterday.[2]

negɨd[1] bidda[2]   =   having jumped, fell: a dysphemism for death.

b) As listed in the verb-lists, bi·ḷu occurs compounded with a number of nouns: N_z ^bi·ḷu. This is the most convenient way of stating this phenomenon, as N_z can be assigned neither to a subject nor as object. This verb like a·gu, ma·ḍu, paḍu, is another verbalizer.

N_z ----→ ⌐k^ha·yle   illness
         ⌊ha·ḷu   disuse, ruin

k^ha·yle bi·ḷu   means   'to fall ill'

haḷu bi·ḷu   means   'to fall into disuse'

c) bi·ḷu enters into many idiomatic phrases with post-
positions:

'behind'   hinde ⎞   bi·ḷu   'fall behind'

'before'   munde ⎬   'come forward'

'on'   me·le ⎠   'be forward'

d) biddu biddu (bi̇ḷ^d + bi·ḷ̇^d) 'falling-falling' is
used frequently in the sense of "with all his might":

bid bidd[1] o·dda[2]   He studied[2] very hard.[1]

ha·ku has the (intensive) sense of "finish off easily etc."
in the Vb^i + VP^k construction.

vondinadal[1] hat pustka[2] vodha·kde[3]
In a day[1] I easily finished reading[3] ten books.[2]

In this sense, yesi ('throw') is also used, adding more
force to the ease with which something is done.

hat dinad[1] kelsa·na[2] vond gaṇṭe·l[3] ma·ḍesda[4]
He finished off[4] in one hour[3] ten days'[1] work.[2]
(ma·ḍi[1] esda[2]   threw away[2] having done[1])

Again, as with koḍu, ha·ku and esi go with verbs of
physical activity, usually tasks of one sort or another:

e·g.   agi   'dig'

            aḷi   'measure'

            neḍu   'plant'

            se·du   'draw (water)' etc.

ho·gu ('to go') usually has an intensive-completive sense.
It also intransitivizes, and has a passive, "to get Vb",
sense.

Gloss of Verbs		Gloss of Collocations
tear	har±d ho·gu	'get torn'
mix	kal±s ho·gu	'get mixed'
see	kaṇḍ ho·gu	'become apparent'
carve, dig	ket ho·gu	'become dented, etc.'
pound	kuṭ ho·gu	'be ruined'
overstep	mi·r ho·gu	'overshoot, get out of control, get too late'
cover, shut	muc ho·gu	'be covered up'
plant	neṭ ho·gu	'get rooted'
draw (water, etc.)	se·d ho·gu	'get drawn in, paralysed'
take, open	tegɨd ho·gu	'get thin, lose weight'
know	tiḷɨd ho·gu	'be discovered, become known (esp. secrets)'

Many of these collocations are of very high frequency in
common speech. The passive sense of 'ho·gu' is re-inforced
by all the above being commonly used only in the neuter
(p. 223), which makes for an intransitive impersonal
construction (somewhat like 'it rains' etc.), even without
ho·gu (Top 19).

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Top (38): ka·ŋ^t$_q$^illa ====⟶ ka·ŋ^k

ka·ŋu is a verb that can take the person-gender-number suffixes without any tense suffixes. Then it gets a negative significance. It is almost the only verb in the present dialect where a negative can be conjugated to agree with the subject. There are a few sporadic instances of others in proverbs, like **ta̧·nu·** tinna parargu· koḍa 'He won't eat, nor will he give it to others'.

$$
\text{ka·ŋ}^\wedge \begin{bmatrix} m \\ f \\ mf^\wedge pl \\ n \\ n^\wedge pl \end{bmatrix}_i
\quad \longrightarrow \quad
\text{ka·ŋ}^\wedge \begin{bmatrix} a \\ l \\ r \\ d \\ v \end{bmatrix}_i
$$

$$
\begin{bmatrix} na·n \\ na·v \\ ni·n \\ ni·v \end{bmatrix}_i + \text{ka·ŋ}^\wedge k
\quad \longrightarrow \quad
\begin{bmatrix} na·n \\ na·v \\ ni·n \\ ni·v \end{bmatrix}_i + \text{ka·ŋ}^\wedge \begin{bmatrix} e \\ v \\ e \\ ri \end{bmatrix}_i
$$

As seen above the values for k here are the same as for other verbs with the tense endings.

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koḍu ('to give') usually functions as a 'benefactive.'
As one may see, many of the verbs are verbs descriptive of
physical tasks: agi 'to dig', aḷi 'to measure', baḍi 'to
beat', etc. With some verbs, as below, it develops new
senses (the glosses are only suggestive, not perfectly
precise equivalents).

Gloss of Verb		Gloss of Collocation
leave	biṭ koḍu	release
bring	tan(d) koḍu	fetch
say	heḷ koḍu	teach

Tob (43): $V \hat{\ } i \hat{\ } koḷ^n ḷ$ $====\Rightarrow$ $V \hat{\ } i \hat{\ } ko\cdot$

V + koḷ (reflexive):

Gloss of Verb			Gloss of Collocation
baḍi	to beat	baḍko·(intr)	to protest or warn in vain
biḍ	to leave	(ni·r) biṭko·	It oozed water
ha·k	to put	ha·kko·	to wear, put on
harḍḍ	to spread	haraḍko·	to spread by itself
he·ḷ	to tell	he·ḷko·	to confide, to unburden oneself
hoḍi(tr)	to beat	hoḍɨko·(intr)	to speak in vain
kaḍi	to cut	kaḍɨko	to cut (tree, etc) for one's use
kari	to call	karɨko·	call (child, etc.) away from speaker
kars	to cause, to call		
	to call	karɨsko·	to get someone to come over
ka·ṇ	to see	kaṇḍko·	to realize for oneself
ke·ḷ	to listen, to ask	ke·ḷko·(intr)	to entreat, request
ku·g	to call	ku·kko(intr)	to scream
mucc	to shut	mucko·	to shut up (in abusive language
namb	to believe	nam⟨b⟩ko·	to trust implicitly

nenas	to cause to remember	nenasko·	to remember with feeling
no·ḍ	to see	no·dko	to look after
se·r	to reach, join	se·rko·	to reach safety, to join a party, etc·
ta·	to bring	tan⟨d⟩ko·	to get a bride (from a certain family)
horaḍ	to start	horaṭko·	(always neuter) to sprout

ku·ru (to sit), uḍu (to wear), kali (to learn), tiḷi (to
know), koḷḷu(to buy) raṭely occur without koḷḷu;with words
like he·lu (to defecate), suli (to skin), bevi̵r (to sweat),
tinnu (to eat), koḷḷuhas an intensive connotation also·

Other words like keḍu. (to spoil), ka·yi (to warm), mugi
(to end), sa·yi (to die), sa·lu (to suffice), alla·ḍu (to o
oscillate), a·gu (to become), hani (to sprinkle), ho·gu
(to go), almost never take koḷḷu except in koḷḷi (koll li)
forms: keṭre keṭkoḷḷi = if he must rot, let him; a·gu,
sa·yi, alla·ḍu, ho·gu also may enter this frame:
V^re + V^koḷḷ^li (Top 3, cf· p· 44)·

INTR·

a·ḍu	to play	a·ḍko·	to gossip; to play by oneself
badi̵k	to live	badi̵kko·	to survive somehow
hecc	to increase	hecko·	to swell with conceit

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ma·ḍu acts very productively as a verbalizer from nouns, especially abstract nouns, here designated N_x, a sample list of which is given below:

$N_x \char`^ ma\cdot ḍu \quad ----\rightarrow$

ḍifikaḷṭ	⎫ ma·ḍu	to make difficult
ha·ḷ		to spoil
manas		to make up one's mind
safar	⎬	to suffer
Adj^Pr$_1$^k		to make (it) big, small, etc.
Ndes	⎭	

As may be seen, it is a productive pattern into which any foreign word may go. But the slot is a noun-slot, and even words like 'suffer' which are verbs in the "model" are rendered as nouns in the "replica." Any adjective can be verbalized by adding ma·ḍu to its nominalized form: doḍḍad ma·ḍu: 'make it big, enlarge it, etc.

That this ma·ḍu is a verbalizer and not a transitive with the preceding noun as object is made clear by comparing it with the following set:

help	⎫	to help
namïska·ra	⎬ + ma·ḍu	to do namaska·ra
travel		to travel
mane	⎭	to make a house, to set up a family

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This set also is hospitable to loans, 'verbalizes' (only in translation) the preceding noun, and looks like the previous one. But an accusative an may be added to the nouns here; they may also undergo a nominalizing transformation as any object:

ma·ḍid +
$\begin{cases} \text{help} \\ \text{tr ӕvellu} \\ \text{mane} \end{cases}$

'the help rendered'
'the travel done'
'the house set up'

is possible. But not:

*ma·ḍid +
$\begin{cases} \text{safaru} \\ \text{ha·ḷu} \\ \text{manasu} \end{cases}$

Tob (44): $X + N \mathbin{\char`\^} an + pa\d{d}* \implies X + N_y \mathbin{\char`\^} an \mathbin{\char`\^} pa\d{d}*$

paḍu ('undergo, suffer') though transitive, has a limited range of objects, which it verbalizes. Unlike the transitives, it never occurs as a free form without objects. That they are objects is seen by the insertibility of the accusative an as well as the possible nominalization of N_y:

$$avɨn^1 \ ka\d{s}\d{t}^2 \ pa\d{t}\d{t}a^3 \implies avɨn^4 \ pa\d{t}^5 \ ka\d{s}\d{t}a^6$$

He[1] suffered[3] hardship[2] $\implies$ the hardship[6] he[4] suffered[5]

N_y's are limited to words descriptive of states of mind; here is a sample list:

$N_y \mathbin{\char`\^} pa\d{d}$ $\dashrightarrow$

ɛⱥse		to desire
bʰaya		to fear
kaṣṭa	paḍu	to suffer
sukʰa		to enjoy
sande·ha		to doubt

So nearly exclusive is this list that one may use paḍu as grammatical marker for "nouns that describe states of mind."

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Tob (45): X + VP^Y ^ paḍ^k ====⟹ X + VP^k

(Y = participial endings)

paḍu never enters into any constructions with other
verbal participles, as the finite verb.

        *ma·ḍi^paḍu   ====⟹   ma·ḍu   'do'

Tob (46):   sa·l^i^X   ====⟹   sa·l^i^k

$$X + sa \cdot l^\wedge \begin{bmatrix} i \\ ta \cdot \\ de \end{bmatrix}_i + VP^\wedge k \quad ====\Longrightarrow \quad \begin{matrix} sa \cdot l^\wedge \\ sa \cdot l \\ sa \cdot l \end{matrix} \begin{bmatrix} i + ba\overset{n}{r} \\ ta \cdot + i\overset{*}{r} \\ de + \begin{cases} i\overset{*}{r} \\ ba\overset{n}{r} \\ ho \cdot \overset{c}{g} \end{cases} \end{bmatrix}_i$$

sa·lu ('to suffice') as a verb does not take any of the aspectual post-verbs; it enters into other constructions with a few verbs like ba·, iru, ho·gu ('come', 'be', 'go') with special senses.

* sa·l^koṇḍtu   ====⟹   sa·ltu   'It sufficed'

hana¹ sa·l² bantu³ → $hana^1\ sa \cdot l^2\ bantu^3$

haṇa^1 sa·l^2 bantu^3	The money^1 came^3 to be sufficient.^{2}
haṇa^1 sa·lta·^{2} ittu^3	The money^1 would have^3 sufficed.^{2}
haṇa^1 sa·lde·^{2} ho·ytu^3	The money^1 was^2 not sufficient.^{3}

Tob (47): $X^o \begin{Bmatrix} i \\ e \end{Bmatrix}$ ^ i ^ $\begin{bmatrix} kol^n\ḷ \\ koḍ* \end{bmatrix}$ ====⟹   Xɨ ^ $\begin{bmatrix} kol^n\ḷ \\ koḍ* \end{bmatrix}$

With words like hari, heṇi (tear, weave) ending in front
vowels, the past participial suffix should be ɨd — but
this is dropped in the colloquial before koḷḷu and koḍu
as post-verbs. Cf. also

Tob (48):

a)   teg^{o}i$]^{\wedge}$ i $^{\wedge}$ koḷ^{n}ḷ$^{\wedge}$ <u>i</u>   =====⟹   togo<u>lli</u> ⎤
     malag $]_{i}$ malakko<u>lli</u> ⎦ $_{i}$

b)   teg^{o}i$^{\wedge}$ i $^{\wedge}$ koḍ*   ====⟹   t$\begin{Bmatrix} e \\ a \\ o \end{Bmatrix}$kkoḍ*

Underlined elements to be chosen or left out together.

a)   tegi and malagu ('take out, open, etc.', 'lie down')
undergo allomorphic changes when koḷḷu in the imperative
is the post-verb.   The underlined elements are plural
endings.   b) gives the optional variants of tegii before
koḍu - as a sample of certain free variants of verbs.   The
'normal' allomorph of i the participial should have been ɨd.

$$\text{Tob (49):} \quad \left. \begin{matrix} V_2 \\ XY^SZ \end{matrix} \right]_i {}^{\wedge} \left[\begin{matrix} i \\ a \end{matrix} \right]_j \quad ====\!\!\!\Rightarrow \quad \left. \begin{matrix} V_2 \\ XY^SZ \end{matrix} \right]_i {}^{\wedge} \left[\begin{matrix} d \\ d{}^{\wedge}a \end{matrix} \right]_j$$

i and a are past participial endings, adverbial and
adjectival, respectively. The above rule gives some of
the allomorphs of these endings. For all V_2 verbs and all
those stems that carry a superscript morphophoneme (i.e.,
all 'irregular' stems), the past tense forms (indicated by
d) without gender-number features <u>are</u> the participial forms.
The adjectival a is added to the past forms.

<u>Root</u>	<u>Past</u>	<u>Adverbial P.</u>	<u>Adjectival P.</u>
kali	kalɨtlu	kalɨtu	kalɨta
learn	she learnt	having learned	learned
kolⁿl	kondlu	kondu	konda
kill	she killed	having killed	(the one) who killed, or who was killed

The other participial endings are added to the verb-roots
directly: kali·de 'not having learned,' kalita· 'learning,'
kali·d '(the one) not learned,' kalyo· '(the one) learning'
etc.

Tob (50): $V_{\left[\begin{smallmatrix} in \\ t \end{smallmatrix}\right] 2} {}^{\wedge}d \quad ====\!\!\Rightarrow \quad V_{\left[\begin{smallmatrix} in \\ t \end{smallmatrix}\right] 2} {}^{\wedge}t_1$

Earlier in the Kernel Verbs were divided into V_1 and V_2 for morphophonemic reasons. While V_1 verbs take d, V_2 take t_1 as the past tense allomorph. (t_2 is the third person neuter ending.)

Tob (51):

a)
$$X \underset{\cdot}{l}{}^{n} Y {}^{\wedge} d \quad \Longrightarrow \quad X \underset{\cdot}{n} {}^{\wedge} d$$

b)
$$X {}^{\cdot} \begin{bmatrix} g \\ \underset{\cdot}{d} \end{bmatrix}_i {}^{\wedge} t\ l \quad \Longrightarrow \quad X {}^{\wedge} \begin{bmatrix} kk \\ \underset{\cdot}{t}\underset{\cdot}{t} \end{bmatrix}_i$$

c)
$$X\ Z \begin{bmatrix} o \\ n \\ * \end{bmatrix}_i Y {}^{\wedge} \begin{bmatrix} \flat l \\ d \\ t\ l \end{bmatrix}_j \quad \Longrightarrow \quad \begin{bmatrix} Z \\ n \\ \begin{Bmatrix} d \\ t \end{Bmatrix} \end{bmatrix}_i {}^{\wedge} \begin{bmatrix} \flat l \\ d \\ t \end{bmatrix}_j$$

These three are morphophonemic rules, yielding the past
tense stems of verbs. The first two are specific rules,
after which the more general rule c) applies to the residue.
The superscripts are morphophonemes whose values are given
by these Tobs. X is whatever precedes the 'commuting'
member Z, and Y is what follows the morphophoneme. a) says
that before d-stems with l^{n} change l to n.

$$ko\underset{\cdot}{l}{}^{n}\underset{\cdot}{l} {}^{\wedge} d \quad \Longrightarrow \quad ko\underset{\cdot}{n}d$$

nd becomes ṇḍ, by later rule.

In rule b) morphophoneme * over g and d yields stems with
kk and ṭṭ respectively, i.e., the voiced stops are devoiced

and geminated.

$$\text{sig*tu} \quad ====\!\!\Rightarrow \quad \text{sikktu} \qquad \text{(it was found)}$$

sikktu changes to siktu by later rule.

After these specifics, c) offers the general morphophonemic rule for past tense stems. Morphophoneme ^{o} means deletion of that which follows it, ^{n} the change of the consonant preceding it (Z) to n , * the change of Z to d or t as the case may be, depending on the shape of the past tense ending.

$$
\begin{matrix}
\text{a.}^o\text{g} \\
\text{be.}^n\text{yi} \\
\text{ir*}
\end{matrix}
\Bigg]_i
\quad {}^\wedge \text{da}
\quad ====\!\!\Rightarrow \quad
\begin{matrix}
\text{a.} \\
\text{ben} \\
\text{id}
\end{matrix}
\Bigg]_i
\quad {}^\wedge \text{da}
$$

da is the third person masculine singular ending.

The plurals in K 15 are obtained by the 'action' of the morphophoneme ^{o}, as indicated by c):

$$\text{i.a.c}^\wedge\text{c}^o\text{e}^\wedge\text{vi} \quad ====\!\!\Rightarrow \quad \text{i..c}^\wedge\text{vi}$$

Top (39):

a)

$$\left.\begin{matrix} X^nY \\ X*Y \\ bev\dot{i}r \\ he\cdot l \\ so\cdot l \\ hu\cdot \}\end{matrix}\right]_i \quad {}^\wedge t_2 \quad ====\!\!\Rightarrow \quad \left.\begin{matrix} X \\ X \\ bev\dot{i}r \\ he\cdot l \\ so\cdot l \\ hu\cdot \}\end{matrix}\right]_i \quad {}^\wedge t_2$$

Tob (52): $\quad ir^\wedge t_2 \quad\quad ====\!\!\Rightarrow \quad ir*^\wedge t_2$

The above rule speaks of free variants in stems before t_2, the third person singular neuter ending. The free variations are most conveniently expressed by making the morphophonemes optional in the case of n and *. The variations are between the regular changeless stems and the irregular stems with changes of shape (indicated by the morphophonemes). The verb iru(to be) is an exception to this rule of free variation, and so has to be restored to its irregular form, which is done by the Tob.

Top (39)

b)

$$\left.\begin{matrix} bev\dot{i}r \\ hu\cdot \} \end{matrix}\right]_i \quad {}^\wedge d \quad ====\!\!\Rightarrow \quad \left.\begin{matrix} bev\dot{i}*r \\ hu\cdot *\} \end{matrix}\right]_i \quad {}^\wedge t_1$$

bev\dot{i}r and hu·} (to sweat, to bury) have free variants not only in their past tense stems but also in the past tense allomorphs for the masculine feminine singulars.

bev\dot{i}rda ~ bev\dot{i}ta   (he sweated)

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These two stems could be listed either V_1 or V_2, as the
criterial allomorphs themselves are free variants.

c)
$$
\begin{array}{c}
\left.\begin{array}{l}
\text{mig} \\
\text{sig} \\
\text{nag} \\
\text{hog}
\end{array}\right]_i
\end{array}
\wedge
\left.\begin{array}{l}
\text{ut} \\
\text{a}
\end{array}\right]_j
=====\!\Rightarrow
\left.\begin{array}{l}
\text{mig*} \\
\text{sig*} \\
\text{nag*} \\
\text{hog*}
\end{array}\right]_i
\wedge
\left.\begin{array}{l}
\text{ut} \\
\text{a}
\end{array}\right]_j
$$

The above four forms have their past stems freely varying
with the base, even before the masc-fem present endings.
da, the masculine past singular ending has also an allo-
morph a, before the forms with the morphophoneme * in
these verbs.

The three Top's give free variants. The optional alter-
nants (mostly before tu, the neuter past singular) in
'obligatory' inflectional changes are perhaps significant
for diachronics, as nodes of change. All of the stems
involved are morphophonemically complex, as indicated by
the presence of the morphophonemes in superscript. One
of the alternants is invariably the simple affixed ('agglu-
tinative') form, which is both statistically more frequent
and historically more productive. All loan-forms and those
derived from other form-classes take the simple past affix
d (t-forms are a small class too, and most of the
morphophonemically complex stems come from this class).

Tob (53):
$$\text{ni·n} + \left.\begin{array}{l} \text{bar}^n \\ \text{tar}^n \end{array}\right]_i \quad ====\!\!\Rightarrow \quad \text{ni·n} + \left.\begin{array}{l} \text{ba·} \\ \text{ta·} \end{array}\right]_i$$

$$\text{ni·v} + \left.\begin{array}{l} \text{bar}^n \\ \text{tar}^n \end{array}\right]_i {}^{\wedge}\left\{\begin{array}{l} \text{i} \\ \text{ri} \end{array}\right\} \quad ====\!\!\Rightarrow \quad \text{ni·v} + \left.\begin{array}{l} \text{ban} \\ \text{tan} \end{array}\right]_i {}^{\wedge}\left\{\begin{array}{l} \text{ni} \\ \text{ri} \end{array}\right.$$

Unlike all the other verbs in the lists, bar and tar do not have the same phonemic shapes for non-past stems and second person singular imperatives. This Tob gives the second person singular imperative stems.

They have past tense stems ban- and tan- before the second person plural imperatives i (here ni) and ri, which are free variants.

Tob (54):
$$\left.\begin{array}{l} a\cdot{}^{o}g \\ ho\cdot{}^{o}g \end{array}\right]_i \ {}^{\wedge} t_2 \quad =\!=\!=\!=\!\Rightarrow \quad \left.\begin{array}{l} a\cdot y \\ ho\cdot y \end{array}\right]_i \ {}^{\wedge} t_2$$

a·g and ho·g (to happen, to go) have a·y and ho·y as allomorphs before t_2 the third person neuter singular ending. The forms eliminated by this Tob, viz., a·tu and ho·tu, occur in other Kannada dialects. In an inter-dialect grammar this would be a Top. (For other rules of this kind, cf. page 252.

Morphophonemics:
Tob (54.1)

a) $t_2 \hat{}\, e \hat{}\, X$ $====\!\Rightarrow$ $ta\hat{}\, X\hat{}\, e$

Where X is all that may follow $t_2\, e$ in kernel 16.

b) $ta\hat{}\, t\hat{}\, e$ $====\!\Rightarrow$ $t\hat{}\, te$

The above two morphophonemic rules give the actual III
person present-tense forms, Vb ta·ne̩, ta·l̩e, ta·re;
b) eliminates ta·te (a Muslim dialect form) for this
dialect·

Tob (55):   id^n#   ====⟹   ida#   (masc. past sg.)

Tob (56):   id^t₂   ====⟹   itu   (neuter past sg.)

Top (40):   X^a·t   ====⟹   X^i·t   (contingent)

(Tob 55) Except in final position, masc. past sg. is idn-.

      ma·ḍɨdn + ante   'It seems he did it.'

      ma·ḍɨda #   'He did it.'

Chapter Six

Morphophonemics

Summary of Chapter Six (Morphophonemics)

Tob (57)

a): $\left.\begin{matrix} i \\ e \end{matrix}\right\} \wedge \begin{bmatrix} o. \\ u \end{bmatrix}_i$ $====>$ $\left\langle \begin{matrix} i \\ e \end{matrix} \right\rangle \; \hat{} \; y \; \hat{} \; \begin{bmatrix} o. \\ \dot{\imath} \end{bmatrix}_i$

When front vowels precede back vowels, a Y-glide appears in place of the former in allegro speech; in lento, the i and e may re-appear. u̲ is replaced by i̲.

ma.ḍde o.	$====>$	ma.ḍdyo.	'Did you do (it)?'
(ma.ḍdyo	$====>$	ma.ḍi̱dyo. by Tob 60)
suri o.	$====>$	sur\<i\>yo.	'that which pours'
suri utte	$====>$	sur\<i\>yi̱tte 'it pours'

Tob b): $\left. \begin{matrix} a \\ u \\ e \\ i \end{matrix} \right] \; \hat{} \; i$ $====>$ $\left. \begin{matrix} i \\ uvi \\ eyi \\ i \end{matrix} \right]_j$

This rule deletes a and i before i and introduces glides v (after u) and y (after e).

huḍg^a^i $====>$ huḍgi   'girl'

c): $\left. \begin{matrix} a \; \hat{} & a \\ & o \\ & e \end{matrix} \right]_i$ $====>$ $\left. \begin{matrix} a \\ av \hat{} \; \begin{Bmatrix} o \\ e \end{Bmatrix} \end{matrix} \right]_i$

a is lost before a; before o and e, it acquires a v-glide.

alla e.	$===>$	allave.
alla o.	$===>$	allavo.

d):   # i ⌉   ====>   # y ⌠i⌉
          e | ⎩e|
          u | v ⌠u|
          o ⌋   ⎩o⌋

Before juncture i and e are preceded by the on-glide y,
u and o by the on-glide v.

e.g.   # yinnu #

              # yekɨre #

              # vu.ru #

              # vondu #

Tob (58)

a):
$$
\left.\begin{array}{c} i \\ e \\ u \\ o \\ N\ f\text{-}a \end{array}\right] \quad X \quad =====> \quad \left.\left.\begin{array}{c} i \\ e \\ u \\ o \end{array}\right\} \quad . \quad \right] \quad X
$$
$$
N\ f\text{-}a\langle . \rangle
$$
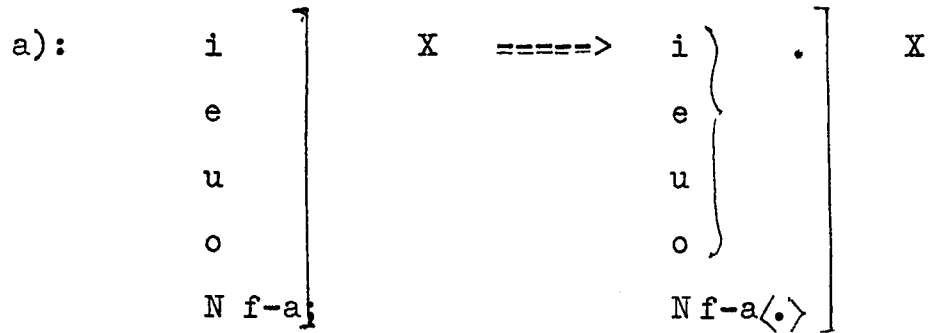
This rule states that /ieuo/, and feminine nouns ending in /-a/ get lengthened (the last optionally) when a bound or a free (or +) morpheme is added to it. This general rule takes care of a large number of allomorphs in all the form-classes:

nadi.ta.ne	He walks	(V)
si.ta.ge	for Sita	(N)
guru.+mane	the Guru's house	(N)
kari.du	the black one	(Adj)

There are several exceptions to this rule, as in nadi su ---> nadsu, etc. Such cases are taken care of as they appear, by morphophonemes like ^{o} which drop the /i/, before we arrive at the stage where the present rule can be applied. (Cf. Verb list and Tob 51)

This rule is placed here because it works in all cases that are left over after the above exceptions are taken care of under individual rules (cf. also genitive. dative).

b)   v.   v   ====>   v.

A short vowel is lost before a long one.

This also takes care of cases where V_1 is lengthened and V_2 is lost:

maga^anta   ===>   maga.^anta   (Tob

maga. anta   ===>   maga.nta   (This rule)

Tob (59)

      a):   XCV<^>C<V># =====> XCCV

Where X is not a juncture and # is /, + or #.

This rule applies only to short vowels that are found in
the penultimate position, after the previous rules have
operated on the sequence. For instance, rule 58 lengthens
i, e, u, o before we reach this rule. This rule yields the
various allomorphs of the forms in the lists:

      yettara (cf. List 24) ===> yettra (this rule)

      yettra ===> yetra (rule b)

One may ask why forms like yettara are not written yetra
in the first instance. But then the geminated tt is kept
intact elsewhere:

      yettɨrdalli   'in the height(s)'

And, in lento speech, the form yettara is often pronounced
as such: i.e. the present rule can be inhibited for such
speed-variants (in a more detailed grammar). If one wrote
yetra at the outset, neither the former obligatory variant
nor the latter 'stylistic' one, can be indicated simply.
The present transcription facilitates further such state-
ments of style- and speed-variants not included here.

A proviso must be added to this rule: this syncope-rule
for penultimate vowels does not hold good for a few Sanskrit
forms, where the irreducible vowels may be marked by an
accent:

a.śrama   'hermitage'

akráma   'violation, lawlessness'

arjúna   'name of an epic hero'

But no further generalization seems possible as vowels
in other Sanskrit words like akṣara 'letter', budd^{h}i̱ˆvanta
'intelligent man' are subject to this and other syncope-
rules, yielding akṣïra and budvanta.

Syncope:

Geminate reduction

b): $\left.\begin{array}{c} C_1 C_1 ^ C_2 \\ C_2 ^ C_1 C_1 \end{array}\right]$;   ===> $\left.\begin{array}{c} C_1 C_2 \\ C_2 C_1 \end{array}\right]$;

If, as a result of morpheme-juncture rules, a geminate
$C_1 C_1$ is preceded or followed by any consonant C_2 (includ-
ing C_1), the geminate is reduced to C_1.

Tob 59(a) ---> yettra ====> yetra

Tob (60)

$$
\text{a)} \quad \left.\begin{array}{l} \text{Ṣ̥t X} \\ \text{X Ṣ̥t} \end{array}\right] \;\;\text{======>}\;\; \left.\begin{array}{l} \text{Ṣ̥t} \\ \text{X} \end{array}\right] \;\text{ɨ}\; \left[\begin{array}{l} \text{X} \\ \text{Ṣ̥t} \end{array}\right.
$$

In a cluster, if a retroflex stop (Ṣ̥t) is followed by a
non-retroflex X, or preceded by it, an ɨ vowel intervenes.
Sibilants and nasals are excluded from both Ṣ̥t and X;   y
is also excluded from the set designated by X. The cluster
on the left-hand side may be either in the listed form or
may result from the operation of a rule.

kaɖ°i^da ====> kaɖ^da   (Tob 51c)

kaɖ^da   ====> kaɖɨda (this rule) 'he cut ..'

b) $C_x C_y$ + C   =====> $C_x ɨ C_y C$

ɨ appears, as shown above, when a $C_x C_y C$ cluster is the
result of affixation, phrase-joining or compounding.
The subscripts indicate that $C_x C_y$ is non-geminate.

cell^ut =====>   cellt   (Tob 59)

cellt^te =====>   cellɨtte   'it will spill'

avn + mane =====> avɨnmane   'his house'

Top (41)

C ɨ Son CC   ===>   C Son ɨ CC

The I ɨ before a sonorant (Son) in a cluster as above may undergo metathesis and may appear after the Sonorant.

mars^da ===> marɨsda (60 b)   'he made X forget'
mars^d^ru ===> marɨsdru (60 b) 'they made X forget'
marɨsdru ===> marsɨdru (this rule)   "

This rule takes care of many free variants of this type and predicts further insertions of ɨ in bigger clusters:

Top	urḷu ===> urɨḷu	60 a	'roll'
	urɨḷsda ===> urḷɨsda	this rule	'he rolled]
	urɨḷsdru ===> urḷɨsdru	"	'they "
	urḷɨsdru ===> urḷsɨdru	"	"

In a form like urɨḷsɨsɨdru 'they made X roll something'(double causative, all the following free variants are taken care of by this and the previous two rules:
urɨḷɨsɨsdru
urɨḷsɨsɨdru
urḷɨs(s)dru etc

Similar sets can be produced for non-retroflexes also, where 60 a) does not operate :
malɨgu
malɨgsu
malgɨsda ~malɨgɨsda
malɨgsɨsda ~ malɨgɨs(s)da ~ malɨgɨsɨsda

Tob̄ (60)

c: V· Son$_x$±CyV ====>   V· Son$_x$CyV

When, in the shape V·Son$_x$±CyV, Son$_x$ and Cy are
not homorganic (this is denoted by the different
subscripts), if the preceding vowel is long, the
ɨ-vowel is dropped.   This accounts for innumerable
paired shapes like kasɨda 'he filched-', ka·sda 'he
warmed-', turɨsu 'itch or scratch', tu·rsu 'thread
or sneak something in'.   But, rule b) applies if a
consonant should appear after Cy instead of a vowel:

            tu·rs^da   ====>   tu·rɨsda   (rule b)

The above rules do not exhaust the description
of this apocopic vowel ɨ, though it describes most
of the environments.   Its sporadic occurences as
a free-variant and its allophony are yet to be fully
taken care of.

Assimilation:

a) Retroflexes

b) Dentals

c) Voiceless stops

Tob (61)

a)

$$X \begin{bmatrix} l \\ n \end{bmatrix} \quad \texttt{=====>} \quad X \begin{bmatrix} \d{l} \\ \d{n} \end{bmatrix}$$

When a retroflex consonant is followed by l or n, the latter are also retroflex.

kaḷḷaˆne   =====>   kaḷḷ̣ˆne   (Tob 59)

kaḷḷ̣ˆne   =====>   kaḷṇe

b)

$$\begin{matrix} d \\ t \end{matrix}\Big] \; \d{l} \quad \texttt{=====>} \quad \begin{matrix} d \\ t \end{matrix}\Big] \; l$$

c: St_1 voice^St_1 =======> St_1^St_1

a) and b) are regressive assimilations of the second consonant to the first.

ka·ŋ^da	kaṇḍa	He saw
vo·ḍ^la·ra	vo·ḍḷa·ra	He can't run
kuṭṭ^la·ra	kuṭḷa·ra	He can't pound
kadd^ḷi	kadlu	She stole
satt^ḷu	satlu	She died

c) is the progressive assimilation of the voiced stop consonant to the following voiceless stop at the <u>same</u> point of articulation, indicated by subscript i.

malag^ko· ======>	malakko·	sleep (imperative)
idd^tu ======>	itttu (this rule)	it was
itttu ======>	ittu (59b)	

Tob (62) $- C \begin{bmatrix} / \\ \# \end{bmatrix} \quad \Longrightarrow \quad - C \ u \begin{bmatrix} / \\ \# \end{bmatrix}$

This rule eliminates pre-pausal consonants.

Before pause, a /u/ is added to any consonant.

e.g.   avnu #

                 ya·ru #

                 ku·gu #

In some styles, English loan-words with consonant-finals occur; when they do, they can easily be accommodated by including therein in the lexicon and by a specific rule like

Top : a) dazannu   =====>   dazan

        b) kḷabbu   =====>   kḷab

or with a morphophonemic ending ḍaza_n_ and a rule

Top $\underline{X}$ #   =====> $\begin{cases} XXu \\ X \end{cases}$

Tob (63)

$$\left. \begin{array}{ccc} x & + & y \\ x & & y \end{array} \right] \quad =====> \quad \left. \begin{array}{cc} x & y \\ & xy \end{array} \right]$$

All remaining +'s and ⌁'s are now deleted;   +'s are
deleted and spaces left in their place.   All the
writing in the terminal strings is now to be consider-
ed phonemic.

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