# The number feature of Hindi and Marathi

## निरंजन\*

Department of Linguistics University of Mumbai

PhD coursework examination Paper I: Linguistic analysis Term-paper submission 2 February 1, 2024

#### Abstract

This paper compares and analyses the morphological systems of number of Hindi and Marathi, two Indo-Aryan languages. The analysis of Hindi is based on the data collected in classroom sessions. For Marathi, I have used myself as informant. It can be seen in appendix A. Further, I talk about the values of the number feature of these languages and account for all the types of manifestations those values show.

## Contents

Ι	Hin	${f di}$	2
	I.I	Number as a category and its values	2
	1.2	Manifestation of number values	2
	1.3	Hindi singulars	3
	1.4	Hindi plurals	3
	1.5	Patterns and rules	3
		I.5.I Masculine	3
		I.5.2 Feminine	3
	1.6	Agreement	4
	1.7	Quantification	4

This work is licensed under the Creative Commons Attribution ShareAlike International 4.0 license. URL: https://creativecommons.org/licenses/by-sa/4.0/legalcode.txt. It falls under the paradigm of 'reproducible research' where I share all the tools used in the production of this research. Resources used to produce this work can be found in the comprehensive repository of my research. URL: https://puszcza.gnu.org.ua/projects/niranjan-rr.

<sup>\*</sup>Copyright © 2022, 2023, 2024 निरंजन

2	Ma	rathi
	2.I	Number as a category and its values
	2.2	Manifestation of number values
	2.3	Marathi singulars
	2.4	Marathi plurals
	2.5	Patterns and rules
		2.5.I Masculine
		2.5.2 Neuter
		2.5.3 Feminine
	2.6	Agreement
	2.7	Quantification
3	Cor	nclusion
A	Wo	rd list

## 1 Hindi

Pluralisation in Hindi is largely morphological. It shows only one fully robust lexical semantic constraint. It does show some phonetic patterns, but largely they aren't robust. A detailed description follows.

# I.I Number as a category and its values

Hindi shows diverse morphological patterns with respect to the number of nouns. The number system is not an autonomous morphological category as its manifestations depend on the gender of the concerned nouns too. The number category has two values namely singular and plural.

#### 1.2 Manifestation of number values

The number values can be seen on some classes of nouns, some classes of adjectives and all verbs in certain aspects. Most of the agreements show mixed information regarding the gender and the number of the concerned nouns.

In pronouns, number value is manifested in first and second person. Hindi pronouns show honorificity. Hindi honorificity has two values in first and third persons, but has three values in the second person. The plural forms of the lower level of honorificity are used as the singular forms of the next honorific level and hence the highest honorific levels in all the persons don't show the number contrast. First person non-honorific pronouns have distinct forms with respect to the number value, but with honorific forms the distinction vanishes. In the third person, non-honorific forms also don't show the distinction with number and hence it is absent in the honorific forms too. Interestingly in the second person, the lowest and the middle levels of honorificity show distinct forms with respect to number, but as noted earlier, in the highest level of honorificity, as all the forms are exhausted, the number distinction vanishes. Note that nothing of

Person	SG	PL	HON
I	'मै' (/mɛ/)	'हम' (/həm/)	Ні
I	'हम' (/həm/)	'हम' (/həm/)	$H_2$
2	'तू' (/t̪u/)	'तुम' (/t̪um/)	$_{\mathrm{H}\mathrm{I}}$
2	'तुम' (/t̪um/)	'आप' (/aːp/)	$H_2$
2	'आप' (/aːp/)	'आप' (/aːp/)	$_{ m H_3}$
3	'वो' (/vo/)	'वो' (/vo/)	$_{\mathrm{H}_{\mathrm{I}}}$
3	'वो' (/vo/)	'वो' (/vo/)	$_{\mathrm{H2}}$

Table 1: Hindi pronouns

this is affected by the gender. Table I demonstrates this pattern. I have used HI, H2 and H3 respectively to mark the levels of honorificity in the increasing order.

## 1.3 Hindi singulars

Singular is the default value of number in Hindi. Mass nouns to which the semantics of number doesn't apply also typically show this default value. As number morphemes are used for marking honorificity; using singular for a person sometimes may sound rude, but sometimes maybe used to denote the proximity with the addressee as honorificity implies distance.

## 1.4 Hindi plurals

Plurals are used for honorificity. Plurals start after  $1\frac{1}{2}$ , i.e., till then adjectives, verbs and nouns show singular forms only. Honorificity denotes politeness, but also some distance, hence honorific forms are avoided for people close to the speaker.

### 1.5 Patterns and rules

In this section we will look at a list of rules which captures the patterns of the number feature of Hindi.

#### 1.5.1 Masculine

- $/_{N} X-a\#/ \longleftrightarrow /_{N} X-e\#/$
- $/_{N} X-i\#/ \longleftrightarrow /_{N} X-i\#/$
- $/_{N} X-C\#/ \longleftrightarrow /_{N} X-C\#/$

#### 1.5.2 Feminine

• 
$$/_{N} X-i\#/ \longleftrightarrow /_{N} X-ij\tilde{a}\#/$$

```
• /_{N} X-C\#/ \longleftrightarrow /_{N} X-C\~{e}\#/
```

Looking at this list of patterns, we can conclude that Hindi masculine nouns have three phonologically governed classes and feminine nouns have two of them.

## 1.6 Agreement

In this section we will look at the different patterns of agreement in Hindi. The most significant places where agreement occurs for the number values are adjectives, verbs and the pronouns. They are demonstrated in the following data.

(I) a. तू चीज़ बड़ी है मस्त।

tu tiz bəτi hε məst 2.SG (HI) thing.FSG big-AGR be.PRS.AGR nice

You are a fab thing.

b. टिप टिप बरसा पानी।

tip tip bərs-a pani Drop drop shower-PFV.AGR water.M

Water dripped slowly.

c. तुमने कभी किसीसे प्यार किया?

Have you ever loved someone?

d. हमने तुमको देखा।

```
həm=ne tum=ko dekh-a
I.SG=ERG (H2) 2.SG=DAT (HI) see-PFV.DEFTG.DEFTN
I (HON) saw you (mid-HON).
```

For adjectival and verbal agreement see Ia and Ib. Note that the adjectival agreement isn't robust (cf. /bəṛ-i/ and /məsṭ/ from Ia). For the selection of pronouns have a look at Ic. There is a syntactic constraint on verbs because of which they don't show agreement with cased DPs. Still they show the default gender (M) and the default number (SG). I have used DEFTN and DEFTG deliberately to distinguish between these two (cf. Id).

### 1.7 Quantification

Hindi uses the same set of words for quantifying and counting as can be seen in the following data.

## (2) a. कितनी हसीं ज़िन्दगी है ये।

kiṭn-i həsī: zindəgi hɛ je So-AGR beautiful-AGR life.FSG be.PRS.DEFTN DEM.PROX

How beautiful is this life.

b. कितने आदमी थे?

kiţn-e admi  $\ensuremath{\xi^{h}}\mbox{-e}$ How many-AGR person.MPL be.PST-AGR

How many people were there?

When used with uncountable nouns like 'life', it refers to the quantity of it and can roughly be translated to *this/so much* as can be seen in 2b and when used with countable nouns it refers to their quantity and can roughly be translated to *these/how many*. The same happens with the following quantifiers of Hindi.

- [bəhut] (a lot much/many)
- [thor-a/i] (less/little)
- [kutʃh] (some)

One exception to these quantifiers is of  $/k \omega i/$  which is only used with countable nouns.

## 2 Marathi

Like Hindi, pluralisation in Marathi too is morphological. Marathi also shows phonologically conditioned pluralisation, but not uniformly. Marathi's pluralisation is morphologically much more diverse. It is declensional, it is based on genders of nouns. Hence we will discuss the features of each gender.

## 2.1 Number as a category and its values

Like Hindi, Marathi also shows two values for number, i.e., singular and plural. The number feature is dependent on gender and declensions. Certain lexical peculiarities are also observed which will be discussed in the coming sections.

#### 2.2 Manifestation of number values

Marathi has adjectival and verbal agreement which is sensitive to number. Being a fusional language, Marathi too (like Hindi) fuses gender and number information in one morpheme, but there are some special cases which will be presented further.

Unlike Hindi, Marathi pronouns show number distinction in all the persons. Honorificity also is seen with the use of plural morphemes. Marathi honorificity

Person	SG	PL	HON
I	'मी' (/mi/)	'आम्ही' (/amʰi/)	Ні
I	'आम्हीं' $(/\mathrm{am^{fi}i}/)$	'आम्ही' $(/\mathrm{am^{fi}i/})$	$_{\mathrm{H2}}$
2	'तू' (/t̪u/)	'तुम्ही' (/t̪umʰi/)	Ні
2	'तुम्ही' (/t̪umʰi/)	'तुम्ही' (/t̪umʰi/)	$_{\mathrm{H2}}$
2	'आपण' (/apən/)	'आपण' (/apən/)	$H_3$
3M	'तो' (/t̪o/)	'ਜੇ' (/t̪e/)	Ні
$3^{\mathrm{M}}$	'ਜੇ' (/t̪e/)	'ਜੇ' (/t̪e/)	$_{\mathrm{H2}}$
3F	'ती' (/t̪i/)	'त्या' (/t̪ja/)	$_{ m H{\scriptstyle I}}$
3F	'त्या' (/tja/)	'त्या' (/t̪ja/)	$H_2$
$3^{N}$	'ते' (/t̪e/)	'ती' (/t̪i/)	Ні

Table 2: Hindi pronouns

only has two values in first and third persons, but second person has three values. First person honorific is extremely rare. Second person honorifics are standard in formal conversations. Marathi honorifics though are patterned differently than Hindi. Table 2 explains the patterns.

Significantly, Marathi has number distinction only in H<sub>I</sub> level. All the other levels are number-insensitive. Marathi shows gender distinction in third person pronouns. There is a gap that we see here. H<sub>2</sub> for 3N isn't available. We will come back to this shortly in the coming sections.

## 2.3 Marathi singulars

Singular is the default value of number in Marathi too. Mass nouns to which the semantics of number doesn't apply also show this default value. In Marathi too, singulars are used to denote proximity with a person.

### 2.4 Marathi plurals

Marathi Plurals do start after  $1\frac{1}{2}$ , but  $2\frac{1}{2}$  also is singular. So entities with number I,  $1\frac{1}{2}$  and  $2\frac{1}{2}$  show singular, but in between them comes number 2 which is plural and needless to say everything after  $2\frac{1}{2}$  also is plural. Honorificity denotes distance and politeness.

### 2.5 Patterns and rules

The following is a list of gender-wise pattern that we observe in Marathi.

### 2.5.1 Masculine

Marathi only has one suppletive morpheme for the Masculine gender. Rest everywhere Marathi shows no change while pluralising. The pattern observed is as follows:

$$/_{N} X-a\#/ \longleftrightarrow /_{N} X-e\#/$$

#### 2.5.2 Neuter

There are two phonological conditions in the neuter gender. Except these no formal change is observed. Importantly, neuter is the default gender of Marathi.

- $/_{N} X-C\#/ \longleftrightarrow /_{N} X-Ce\#/$
- / $_{_{\rm N}}$  X-u#/  $\longleftrightarrow$  / $_{_{\rm N}}$  X-ə#/

In written Marathi, though, there is a different rule for words ending in /u/, i.e.:

$$/_{N} X-u\#/ \longleftrightarrow /_{N} X-e\#/$$

Additionally, we have another rule in written Marathi, i.e.:

$$/_{N} X-ə#/ \longleftrightarrow /_{N} X-e#/$$

#### 2.5.3 Feminine

Feminine gender of Marathi has a lot of declensional variation. The words that end in /a/ and a set of nouns which are related to Sanskrit show zero change. The remaining conditions are as follows:

- $/_{N} X-ə\#/ \longleftrightarrow /_{N} X-i\#/ \text{ or } /_{N} X-ə\#/ \longleftrightarrow /_{N} X-a\#/$
- $/_{N} X-C\#/ \longleftrightarrow /_{N} X-Ci\#/ \text{ or } /_{N} X-C\#/ \longleftrightarrow /_{N} X-Ca\#/$
- $/_{N} X-u#/ \leftrightarrow /_{N} X-wa#/$

Some /u/-ending words don't follow the pattern given above. They show zero change.

### 2.6 Agreement

Now we see some examples where number-related agreement is seen in Marathi.

(3) a. सत्तर रुपये वारले!

sətrər rupəj-e war-l-e Seventy rupee-MPL die-PFV-AGR

Your seventy rupees died (can't be returned).

This example is presented to demonstrate verbal agreement in Marathi. Marathi has a unique pattern where the verb agrees with the number of both subject and object. This happens only in second person H<sub>I</sub>. Have a look at the following examples.

```
(4) a. तू आंबा खाल्लास.
                    amba
                                        kha-l:-a-s
             2SG_i mango.MSG_i eat-PFV-AGR<sub>i</sub>-AGR<sub>i</sub>
             You (SG) ate a mango.
       b. तू आंबे खाल्लेस.
                    amb-e
                                       k^{\rm h}a\text{-}l\text{:-}e\text{-}s
             2SG_i mango.MPL<sub>i</sub> eat-PFV-AGR<sub>i</sub>-AGR<sub>i</sub>
             You (SG) ate mangoes.
       c. तुम्ही आंबा खाल्लात.
             tum<sup>6</sup>i amba
                                         kha-l:-a-t
             2PL_i mango.MSG<sub>i</sub> eat-PFV-AGR<sub>i</sub>-AGR<sub>i</sub>
             You (PL) ate a mango.
       d. तुम्ही आंबे खाल्लेत.
             tum<sup>6</sup>i amb-e
                                         kha-l:-e-t
             2PL_i mango.MPL<sub>i</sub> eat-PFV-AGR<sub>i</sub>-AGR<sub>i</sub>
             You (PL) ate mangoes..
```

## 2.7 Quantification

Marathi also uses a single morpheme, i.e., 'किती' (/kit̪i/) for quantifying and counting. It refers to the quantity when used with uncountable nouns and when used with countable nouns it refers to the number. This is very similar to Hindi. Some other such function words are as follows.

- [khup] (a lot much/many)
- [thor-a/i/ə] (less/little)
- [kahi] (some)

# 3 Conclusion

Both Hindi and Marathi are fusional languages which have fused morphemes for showing number and gender. Number is a legitimate category in both the languages and it has two values in the former and three in the latter.

# A Word list

This word-list is developed by Dr. Renuka Ozarkar, at the department of linguistics, university of Mumbai. I have collected and transcribed the singular and plural forms of these words in Hindi. As I am the second language speaker of Hindi, I have taken help from Spandan Pattnaik and his mother for some words.

Animal         ġanwər         ġanwər           Cow         gaj         gajë           Dog         kuţ:a         kuţ:e           Donkey         gəḍfa         gəḍfe           Elephant         haţhi         haţhi           Goat         bəkri         bəkrijā           Lion         ʃer         ʃer           Monkey         bəndər         bəndər           Bondər         bəndər         bəndər           Bondər         bəndər         bəndər           Bird         pənfhi         pənfhi           Claw         bəndər         bəndər           Feather         pənkh         pənkh           Fish         mətfiliğ         tiţ	English word	Singular	Plural
Cow gaj gajẽ kut:a kut:e  Donkey gadña gadñe  Elephant hathi hathi  Goat bakri bakrijā  Lion fer fer  Monkey bandar bandar  Mouse tfuha tfuhe  Snake sãp sãp  Claw panta pante  Horn sin sin sin  Tail pũtfh pũtfhẽ  Bird pantfhi pantfhi  Crow kauva kauve  Peacock mor mor  Sparrow tfitija tfitijā  Feather panthi matfhlijā  Ant tfit tfit tritijā  Butterfly titli titlijā  Bull bel bel  Wing par par  Mosquito matf:har matfita  House-fly mak:hi matfita  Kita kite  Louse tru dau  Egg angda ande  Flower phu:l phu:l  Fruit phal phal  Banana kela kele  Mango a:m a:m	Animal	danwər	danwər
Dog kuţ:a kuţ:e Donkey gədina gədine Elephant haţini haţini Goat bəkri bəkrijā Lion fer fer Monkey bəndər bəndər Mouse tluha tluhe Snake săp săp Claw pəndin pontini Tail putin putini Bird pəntini Crow kəuva kəuve Peacock mor mor Sparrow tlitija tlitija Feather pəniki mətinija Ant tliti tlitija Bull bel bel Wing pər pər Mosquito mətinin mətinin Worm kiţa kiţe Louse di die die die Sheep binet sur die Flower piuil piul Fruit piul Banana kela kele Mango aim aim	Cow	-	-
Donkey Elephant Belephant Belephant Boat Boat Boat Boari Boari Boat Boari Boar			
Elephant Goat bəkri bəkri bəkrijā Lion fer fer fer Monkey bəndər bəndər bəndər Mouse tfuha sap Sap Claw pənda pəndh pandh pandh i Crow kəuva kəuve Peacock mor sparrow fiçija fiçija fiçija fiçija Feather pəŋkh pəŋkh pəŋkh Fish mətfhli mətfhli mətfhlijā Ant tfit ttili ttili Butterfly titli ttili bel bel Wing pər pər Mosquito mətf;hər mətf;hər mətf;hər House-fly mək;hi mək;hijā Worm kiça kiçe Louse du dyu Sheep pheç Pig süər süər süər Egg ənda ənde Flower phu:l phul Fruit phəl Banana kela kele Mango	=	$ m gad^{h}a$	
Lion  Monkey  bəndər  bəndər  bəndər  bəndər  bəndər  bəndər  fuha  fuhe  Snake  sãp  sãp  Sãp  Claw  pənda  pənda  pənde  Horn  siŋ  siŋ  Tail  pũtfh  pūtfh  pūtfh  pontfhi  Crow  kauva  kauva  kauve  Peacock  mor  mor  Sparrow  fitija  fitija  fitija  fitija  Ant  fiti  Butterfly  bel  bel  Wing  pər  mətf:hər  House-fly  mək:hi  mətf:hər  mək:hijā  Worm  kiţa  kiţe  Louse  du  gue  Sheep  bhet  bel  phu:l  phu:l  Flower  phu:l  phol  Banana  kela  kele  Mango  a:m  sãp  sãp  sãp  sãp  sãp  sãp  sãp  sã	Elephant		$hat^hi$
Lion  Monkey  bəndər  bəndər  bəndər  Mouse  fuha  fuhe  Snake  sãp  sãp  Claw  pəndsa  pəndse  Horn  siŋ  siŋ  Tail  pūtʃh  potʃhe  Bird  pəntʃhi  pəntʃhi  crow  kauva  kauva  kauve  Peacock  mor  mor  Sparrow  firija  firija  firija  Feather  pəŋkh  pəŋkh  pəŋkh  Fish  mətʃhli  mətʃhlija  Ant  tʃti  gutterfly  titli  titlija  Bull  bel  bel  Wing  pər  pər  Mosquito  mətʃ:hər  mətf:hər  House-fly  mək:hi  mək:hijā  Worm  kiça  kiçe  Louse  du  dyue  Sheep  bfeç  bfeç  Pig  süər  Egg  ənda  ənde  Flower  Fruit  phəl  Banana  kela  kele  Mango  a:m  säp  säp  säp  säp  säp  sip  phəl  Banana  kela  kele  Mango	Goat	bəkri	bəkrijã
Mouse Snake	Lion	ſer	
Mouse Snake	Monkey	bəndər	bəndər
Snake  Claw  pənda  pənda  pənde  Horn  siŋ  Siŋ  Siŋ  Tail  pũtʃh  pottʃh  pottʃh  E  Bird  pəntʃhi  Crow  kəuva  kəuve  Peacock  mor  mor  Sparrow  fitija  Feather  pəŋkh  pəŋkh  Fish  mətʃhli  Mutterfly  titli  bɛl  Wing  pər  Mosquito  House-fly  Worm  kita  kita  kite  Louse  du  du  Sheep  Pig  Siær  Siær  Egg  phul  Flower  phul  phul  phul  Flower  Fruit  phəl  Banana  kela  Kela  Kele  Mango  siŋ  siŋ  pottʃhe  pottʃhe  pottʃhe  pottfhe  pithle  pənde  pənde  phul  phul  phul  phol  Banana  kela  kele  Mango	Mouse	tfuha	
Horn $\sin \sin \sin$	Snake	*	•
Tail $p u t^h p u t^h e$ Bird $p u t^h i p u t^h i$ Crow $k u u u u u k u u u u u u u u u u u u $	Claw	pənda	pənde
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Horn	siŋ	siŋ
Bird pənt $^{h}i$ pənt $^{h}i$ Crow kəuva kəuve  Peacock mor mor  Sparrow tfirija tfirijā  Feather pən $^{h}i$ pən $^{h}i$ Fish mət $^{h}li$ mət $^{h}li$ Butterfly titli titlijā  Bull bel bel  Wing pər pər  Mosquito mət $^{h}i$ mət $^{h}i$ mət $^{h}i$ mət $^{h}i$ for  House-fly mək: $^{h}i$ mət $^{h}i$ mət $^{h}i$ si  Worm kira kira kire  Louse dyu dyue  Sheep b $^{h}e$ r süər süər  Egg ənda ənde  Flower p $^{h}u$ rl p $^{h}u$ rl  Fruit p $^{h}a$ l p $^{h}a$ l  Banana kela kele  Mango axim axim	Tail		
CrowkəuvakəuvePeacockmormorSparrow $\mathfrak{f}$ iţija $\mathfrak{f}$ iţijãFeather $p \mathfrak{g}_{l}^{h}$ $p \mathfrak{g}_{l}^{h}$ Fish $m \mathfrak{g}_{l}^{h}$ li $m \mathfrak{g}_{l}^{h}$ lijãAnt $\mathfrak{g}_{l}^{h}$ ti $\mathfrak{g}_{l}^{h}$ tijãButterfly $\mathfrak{g}_{l}^{h}$ ti $\mathfrak{g}_{l}^{h}$ tijãBull $\mathfrak{g}_{l}^{h}$ ti $\mathfrak{g}_{l}^{h}$ tijãWing $\mathfrak{g}_{l}^{h}$ ti $\mathfrak{g}_{l}^{h}$ tifaWing $\mathfrak{g}_{l}^{h}$ tifaHouse-fly $\mathfrak{g}_{l}^{h}$ tijãWorm $\mathfrak{g}_{l}^{h}$ tijãLouse $\mathfrak{g}_{l}$ tu $\mathfrak{g}_{l}$ tijãSheep $\mathfrak{g}_{l}^{h}$ te $\mathfrak{g}_{l}^{h}$ tePigsũ arsũ arEgg $\mathfrak{g}_{l}$ tul $\mathfrak{g}_{l}$ tulFlower $\mathfrak{g}_{l}^{h}$ tul $\mathfrak{g}_{l}^{h}$ tulFruit $\mathfrak{g}_{l}^{h}$ tul $\mathfrak{g}_{l}^{h}$ tulBanana $\mathfrak{g}_{l}$ tela $\mathfrak{g}_{l}$ tulMangoa:ma:m	Bird		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Crow		
Feather $payk^h$ $payk^h$ Fish $matf^hli$ $matf^hlij\tilde{a}$ Ant $tf\tilde{i}ti$ $tf\tilde{i}ti\tilde{j}\tilde{a}$ Butterfly $titli$ $titli\tilde{a}$ Bull $bel$ $bel$ Wing $par$ $par$ $par$ Mosquito $matf^har$ $matf^har$ $matf^har$ $matf^har$ $matf^har$ $matf^har$ $matf^har$ House-fly $mak^hi$ $mak^hi^hi$ $mak^hi^hi^har$ Worm $kit^a$ $kit^a$ $kit^a$ Sheep $b^hat^a$ $b^hat^a$ $b^hat^a$ Flower $b^hat^a$ $and and and and and and and and and and $	Peacock	mor	mor
Feather $payk^h$ $payk^h$ Fish $matf^hli$ $matf^hlij\tilde{a}$ Ant $tf\tilde{i}ti$ $tf\tilde{i}ti\tilde{j}\tilde{a}$ Butterfly $titli$ $titli\tilde{a}$ Bull $bel$ $bel$ Wing $par$ $par$ $par$ Mosquito $matf^har$ $matf^har$ $matf^har$ $matf^har$ $matf^har$ $matf^har$ $matf^har$ House-fly $mak^hi$ $mak^hi^hi$ $mak^hi^hi^har$ Worm $kit^a$ $kit^a$ $kit^a$ Sheep $b^hat^a$ $b^hat^a$ $b^hat^a$ Flower $b^hat^a$ $and and and and and and and and and and $	Sparrow	t∫iŗija	tf irijã
Fish $mətf^hli$ $mətf^hlija$ Ant $tfit$ $tfit$ $tfitja$ Butterfly $tit$ $tfit$ $tfit$ Bull $tit$			
Butterfly $\begin{tabular}{lll} titli & titlij $	Fish	məʧʰli	mət∫hlijã
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\operatorname{Ant}$	ʧĩţi	tjītijā
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Butterfly	ţiţli	ţiţlijã
Mosquito mətʃ:hər mətʃ:hər House-fly mək:hi mək:hijā Worm kiţa kiţe Louse du due Sheep bhet bhet suər Fig suər suər Egg ənda ənde  Flower phu:l phu:l Fruit phəl phəl Banana kela kele Mango a:m a:m	Bull	bel	bel
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Wing	pər	pər
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Mosquito	mətʃːʰər	mət∫thər
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		mək:hi	
$\begin{array}{ccccc} Louse & & & & & & & & & \\ Sheep & & & & & & & \\ Pig & & & & & & \\ Pig & & & & & & \\ Egg & & & & & \\ \hline Flower & & & & & \\ Fruit & & & & & \\ Phull & & \\ Phull & & & \\ Phull & \\ Phull & & \\ Phull & \\ Phull & & \\ Phull & & \\ Phull & \\ Phull $	Worm	kiţa	kiţe
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Louse		фuẽ
Egg ənda ənde  Flower phu:l phu:l Fruit phəl phəl Banana kela kele Mango a:m a:m	Sheep	${ m b^{ m fl}er}$	b <sup>ĥ</sup> eţẽ
$\begin{array}{ccccc} Flower & p^hu:l & p^hu:l \\ Fruit & p^h \!\!\!\! > \!\!\!\! l & p^h \!\!\!\! > \!\!\!\! l \\ Banana & kela & kele \\ Mango & a:m & a:m \end{array}$	Pig	$ ext{s\~uer}$	$ ext{s\~u}$ ər
$\begin{array}{cccc} Fruit & p^h \ni l & p^h \ni l \\ Banana & kela & kele \\ Mango & a:m & a:m \end{array}$	Egg	ənda	ənde
Banana kela kele Mango a:m a:m	Flower		
Mango a:m a:m	Fruit		-
		kela	kele
Seed bi:dy bi:dy		aːm	a: $m$
	Seed	bi <b>ːʤ</b>	birdz

Continued on the next page.

English word	Singular	Plural
Leaf	pəţ:a	pəţ:e
Tree	per	per
Bark	tf <sup>h</sup> a:l	-
Root	дәр	фэге̃
Grass	$g^{ m fas}$	-
Belly	tond	ţonḍẽ
Back	piːtʰ	$\mathrm{pirt^h}$
Head	168	res
Ear	karn	karn
Eye	$ ilde{ m a}$ : $ m k^h$	$ ilde{ m a}$ : $ m k^h ilde{ m e}$
Nose	nak	nazk
Mouth	mũ:	mũ:
Lip	$ m h ilde{o}t^h$	$ m h  ilde{o} t^h$
Tongue	$d\!{ m sib^{fi}}$	$ m dsi:\!b^{ m fi}$
Tooth	dãːt̪	dãrţ
Neck	gərdən	gərdən
Hair	baːl	baːl
Foot	$_{ m telwa}$	ţəlwẽ
Leg	per	per
Knee	${ m g^{ m f}}$ u ${ m tna}$	$\mathrm{g}^{\mathrm{fi}}$ u $\mathrm{tne}$
Hand	harth	$\mathrm{ha}$ t
Finger	uŋgli	uŋglijã
Thumb	əŋgu:tʰa	əŋgu:tʰẽ
Nails	$\mathrm{nak^hun}$	$\mathrm{nak^hun}$
Bone	həd:i	həd:ijã
Blood	$ m k^hun$	$ m k^hun$
Liver	kəle&a	-
Skin	t∫əmdi	tfəmd <u>ij</u> ã
Clothing	kəpda	kəpde
Bindi	bindi:	$\operatorname{bindij}$ ã
Juda (hair-bun)	ди:ra	фи:ӷе̃
Plait	tfoti	tfotijã
Bangles	kəŋgən	kəŋgən
Necklace	hair	hair
Nose-pin	$_{ m net^h ni}$	${ m net^h nij} { m  ilde a}$
Earring	bali	balijã
Sari	saŗi	saŗijã
Shirt	kəmiz	$k$ ə $miz$ $\tilde{e}$
Blouse	tfoli	tfolijã
Shawl	∫əl	∫əl
Spectacles	$\epsilon$ nək	εnək
Comb	kəŋg <sup>fi</sup> i:	kəŋg $^{ m fi}$ ij $ ilde{ m a}$
	. 1 .1	

Continued on the next page.

Mirror         aina         aine           House         g <sup>6</sup> or         g <sup>6</sup> or           Door         dərvaza         dərvaze           Window         khiţki         khiţkijā           Wall         di:var di	English word	Singular	Plural
Door Window Window Rhiţki Rhiţki Rhiţkijā Wall di:var Roof fhaţ Village gă:v gă:v gă:v  Person Child bətf:a Dotf:a Man purus Woman mahila Husband paţi Brother Brother's wife Sister behen Sister's husband Mother Father Grandfather [Paternal] Grandmother [Maternal] Grandfather [Maternal] Enemy Friend (M / F) Meat / flesh Salt Roti Cil Cil Cil Cil Cil Cil Cil Cil Cil Ci			aine
Wall divar divare Roof fhot fhot fhot gaive gaiv gaiv gaiv gaiv gaiv gaiv gaiv gaiv		•	•
Roof Village  Village  Person  Vjəkţi Child  bətʃ:a  bətʃ:e  Man  puruş  Woman  Husband  Husband  Husband  Husband  Husband  Brother's wife  Sister  behen  Sister's husband  Mother  Father  Grandfather [Paternal]  Grandmother [Maternal]  Grandfather [Maternal]  Hushand  Grandfather [Maternal]  Husband  Grandfather [Maternal]  Husband		•	
Village       gã:v       gã:v         Person       vjəkţi       vjəkţi         Child       bətf:a       bətf:e         Man       puruş       puruş         Woman       məhila       məhilaë         Husband       pəţi       pəţi         Wife       pəṭni       pəṭnijã         Brother       bʰabĥi       bʰabĥijã         Brother's wife       bʰabĥi       bʰabĥijã         Sister       behen       behenë         Sister's husband       ʤi:ʤa       ʤi:ঝe         Mother       mã       mãë         Father       ba:p       ba:p         Grandfather [Paternal]       dada       dade         Grandmother [Paternal]       dadi:       dadijã         Grandfather [Maternal]       nana       nane         Grandfather [Maternal]       nani       nanijã         Enemy       duʃmən       duʃmən         Friend (M / F)       dost       dost         Meat / flesh       mans       mans         Salt       nəmək       -         Roti       roti       rotjijā         Milk       duːdɨ       duːdɨ         Oil       ţel			**
Child bəff:a bəff:e Man purus purus purus Woman məhila məhilaē Husband pəti pəti pəti Wife pətni pətnijā bfai bfai bfai bfai Brother's wife bfabfi bfabfijā Sister behen behenē Sister's husband title gada dade Grandfather [Paternal] dada dade Grandmother [Paternal] dadi: dadijā Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijā Enemy dufmən dufmən Friend (M / F) dost dost duidfa coil tel onion pjaz pjaz potato alu: alu: Rice (raw) tfawəl - Tea tfaj - Turmeric həldi - Turmeric həldi pehed fehed Spoon tfəm:etf dismetti fəm:etf		•	•
Child bəff:a bəff:e Man puruş puruş Woman məhila məhilaē Husband pəţi pəţi pəti Wife pəṭni pəṭnijā bfai bfai bfai bfai bfai bfai bfai bfai	Person	υjəkţi	vjəkţi
Woman məhila məhilağ Husband pəţi pəţi pəţi Wife pəṭni pəṭnijā Brother bʰai bʰabĥi bʰabĥijā Brother's wife bʰabĥi bʰabĥijā bʰabĥijā Sister behen behenë Sister's husband dɨdada dade Grandfather [Paternal] dada dadiga Grandmother [Paternal] dadi dadijā Grandmother [Maternal] nana nane Grandfather [Maternal] nana nane Grandfather [Maternal] nana nane Fiend (M / F) dost dost dost Milk duːdħ duːdh duːdħ duːdh duːdh	Child		bət <b>f:</b> e
Husband Wife Brother Brother Brother's wife Sister Sister's husband Mother Father Grandfather [Paternal] Grandmother [Maternal] Enemy Friend (M / F) Meat / flesh Roti Milk Oil Onion Potato Rice (raw) Spoon Spoon  ### Brother's wife  ### Detail Brother's wife  ### Detail Brother's wife  ### Detail Brother's wife  ### Detail Brother's wife  ### Defail Brother  ### Detail Brother's wife  ### Defail Brother  ### Defail Brothal Brothal Brothal Brother  ### Defail Brother  ### Defail Brother  ### Defail Brother  ### Defail Brothal Brother Brothal Brothal Brothal Brothal Brothal Brothal Brothal Brother Brothal Bro	Man	puruş	puruş
Wife pəṭni pəṭnijā bfai bfai bfai Brother bfai bfabfijā bfabfijā Sister behen behenē Sister's husband ģi:ða ģi:ða ģi:ða Mother mã mãe mãe Father ba:p ba:p Grandfather [Paternal] dada dade Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijā Enemy duʃmən duʃmən Friend (M / F) dost dost Meat / flesh mans mans Salt nəmək - Roti roţi roţijā Milk du:ða d	Woman	$_{ m m}$	${ m m}$ əhil ${ m a}$ ë
Brother Brother's wife Brother's wife Sister  Sister  Sister's husband  Mother  Father  Grandfather [Paternal]  Grandmother [Maternal]  Grandfather [Maternal]  Enemy  Friend (M / F)  Meat / flesh  Salt  Roti  Roti  Roti  Roti  Roti  Roti  Roti  Roti  Roti  Conion  pjaz  Potato  Rice (raw)  Sugar  Tea  Turmeric  Chilli  Wheat  Honey  Spoon  ### Brain  #### Brain  ##### Brain  ###### Brain  ###### Brain  ###### Brain  ######### Brain  ###################################	Husband	pəţi	pəţi
Brother's wife Sister Sister Sister's husband Sister's husband Mother Father Grandfather [Paternal] Grandmother [Paternal] Grandmother [Maternal] Grandfather [Maternal] Enemy Friend (M / F)  Meat / flesh Salt Roti Roti Roti Roti Roti Roti Roti Rot	Wife	pəţni	pəţnijã
Sister Sister's husband Sister Sister's husband Sister Sist	Brother	${ m b^{\it fi}ai}$	${ m b^{ m fi}ai}$
Sister's husband dickids dicke  Mother mã mãe Father ba:p ba:p Grandfather [Paternal] dada dade Grandmother [Paternal] dadi: dadijã Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijã Enemy dusmen dusmen Friend (M / F) dost dost  Meat / flesh mans mans Salt nemek - Roti roti rotijã Milk du:dñ du:dñ Oil tel - Onion pjaz pjaz Potato alu: alu: Rice (raw) tsawel - Sugar selection side of the dicker Tea tsaj - Turmeric heldi - Chilli mirts mirts gehũ gehũ Honey selection site of the dicker Jehed Spoon tselection mãe passes dicker Jehed Spoon tselection mãe passes describes dicker Tea tsaj - Tea tsa	Brother's wife	${ m b^{\it h}ab^{\it h}i}$	$\mathrm{b^{fi}ab^{fi}ij}$ ã
Mother Father  Father  Grandfather [Paternal]  Grandmother [Paternal]  Grandmother [Maternal]  Grandfather [Maternal]  Grandfather [Maternal]  Enemy  Friend (M / F)  Meat / flesh  Roti  Roti  Milk  Oil  Onion  pjaz  Potato  Rice (raw)  Sugar  Tea  Turmeric  Chilli  Wheat  Honey  Spoon  mãe  mãe  mãe  mãe  mãe  mãe  mãe  mã	Sister	behen	behenẽ
Father Grandfather [Paternal] Grandmother [Paternal] Grandmother [Maternal] Grandfather [Maternal] Grandfather [Maternal] Enemy Friend (M / F)  Meat / flesh Salt Roti Milk Oil Onion Pjaz Potato Rice (raw) Sugar Tea Turmeric Chilli Wheat Honey Spoon  ba:p dada dade dade dade dade dade dade dad	Sister's husband	di:da	фi:фе
Grandfather [Paternal] dada dade Grandmother [Paternal] dadi: dadijā Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijā Enemy dusmən dusmən Friend (M / F) dost dost  Meat / flesh mans mans Salt nəmək - Roti roti rotijā Milk du:dfi du:dfi Oil tel - Onion pjaz pjaz Potato alu: alu: Rice (raw) tfawəl - Sugar Jək:ər Tea tfaj - Turmeric həldi - Chilli mirts mirts wheat Honey fehed fehed Spoon tfəm:ətf tfəm:ətf	Mother	mã	$ ext{m} ilde{ ilde{ ilde{e}}}$
Grandmother [Paternal] dadi: dadijā Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijā Enemy dusmən dusmən Friend (M / F) dost dost  Meat / flesh mans mans Salt nəmək - Roti roţi roţijā Milk duːdʰ duːdʰ Oil ţel - Onion pjaz pjaz Potato alu: alu: Rice (raw) tsawəl - Sugar səkər - Tea tsay səkər - Tea tsay səkər - Tea tsay səkər - Turmeric həldi - Chilli mirts mirtse Wheat gehū gehū Honey səkər səkər Fehed səkər tsay səkər	Father	barp	barp
Grandmother [Paternal] dadi: dadijā Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijā Enemy dusmən dusmən Friend (M / F) dost dost  Meat / flesh mans mans Salt nəmək - Roti roţi roţijā Milk duːdʰ duːdʰ Oil ţel - Onion pjaz pjaz Potato alu: alu: Rice (raw) tsawəl - Sugar səkər - Tea tsaj - Turmeric həldi - Turmeric həldi - Chilli mirts mirtse Wheat gehū gehū Honey sələn tsatısı	Grandfather [Paternal]	dada	dade
Grandmother [Maternal] nana nane Grandfather [Maternal] nani nanijā Enemy du∫mən du∫mən Friend (M / F) dost dost  Meat / flesh mans mans Salt nəmək - Roti roţi roţijā Milk duːdʰ duːdʰ Oil tel - Onion pjaz pjaz Potato aluː aluː Rice (raw) tfawəl - Sugar ∫əkːər - Tea tfaj - Turmeric həldi - Chilli mirt∫ mirt∫ē Wheat gehũ gehũ Honey fehed ∫ehed  Spoon tfəm:ətʃ tʃəm:ətʃ			
Grandfather [Maternal] nani nanijā Enemy dusmən dusmən Friend (M / F) dost dost  Meat / flesh mans mans Salt nəmək - Roti roti rotijā Milk du:dfi du:dfi Oil tel - Onion pjaz pjaz Potato alu: alu: Rice (raw) tsawəl - Sugar sək:ər Tea tsaj - Turmeric həldi - Turmeric həldi - Chilli mirts mirtse Wheat gehü gehü Honey sək:ər Spoon tsəm:ətf tsəm:ətf			•
Enemy Friend (M / F)  Meat / flesh Salt  Roti Milk Oil Onion Pojaz Potato Rice (raw) Sugar Tea Tea Turmeric Chilli Wheat Honey Spoon  glost  dusdfm dusdff dusdff dusdff dusdff dusdff coil fay Foreil		nani	nanijã
Friend (M / F)    dost   dost   dost     Meat / flesh   mans   mans     Salt   nəmək   -   Roti   roti   rotijā     Milk   du:df   du:df     Oil   tel   -   Onion   pjaz   pjaz     Potato   alu:   alu:     Rice (raw)   tfawəl   -   Sugar   fək:ər   -   Tea   tfaj   -   Turmeric   həldi   -   Chilli   mirtf   mirtfe     Wheat   gehü   gehü     Honey   fehed   fehed     Spoon   tfəm:ətf   tfəm:ətf		duſmən	
Salt         nəmək         -           Roti         roţi         roţijã           Milk         du:dñ         du:dĥ           Oil         ţel         -           Onion         pjaz         pjaz           Potato         alu:         alu:           Rice (raw)         ʧawəl         -           Sugar         Jək:ər         -           Tea         ʧaj         -           Turmeric         həldi         -           Chilli         mirʧ         mirʧe           Wheat         gehũ         gehũ           Honey         ʃehed         ʃehed           Spoon         ʧəm:əʧ         ʧəm:əʧ	•	•	
Roti         roţi         roţijã           Milk         duːdñ         duːdĥ           Oil         ţel         -           Onion         pjaz         pjaz           Potato         alu:         alu:           Rice (raw)         ʧawəl         -           Sugar         Jək:ər         -           Tea         ʧaj         -           Turmeric         həldi         -           Chilli         mirtf         mirtfë           Wheat         gehũ         gehũ           Honey         ʃehed         ʃehed           Spoon         ʧəm:ətf         ʧəm:ətf	Meat / flesh	mans	mans
Milk         du:dh         du:dh           Oil         tel         -           Onion         pjaz         pjaz           Potato         alu:         alu:           Rice (raw)         tfawel         -           Sugar         Jek:er         -           Tea         tfaj         -           Turmeric         heldi         -           Chilli         mirtf         mirtfe           Wheat         gehũ         gehũ           Honey         Jehed         Jehed           Spoon         tfem:etf         tfem:etf	Salt	nəmək	-
Oil         tel         -           Onion         pjaz         pjaz           Potato         alu:         alu:           Rice (raw)         tfawel         -           Sugar         Jek:er         -           Tea         tfaj         -           Turmeric         heldi         -           Chilli         mirtf         mirtfe           Wheat         gehũ         gehũ           Honey         Jehed         Jehed           Spoon         tfəm:etf         tfəm:etf	Roti	roți	roțijã
Onion         pjaz         pjaz           Potato         alu:         alu:           Rice (raw)         tfawəl         -           Sugar         Jək:ər         -           Tea         tfaj         -           Turmeric         həldi         -           Chilli         mirtf         mirtfë           Wheat         gehü         gehü           Honey         fehed         fehed           Spoon         tfəm:ətf         tfəm:ətf	Milk	du:d <sup>6</sup>	du:d <sup>6</sup>
Potato         alu:         alu:           Rice (raw)         tfawəl         -           Sugar         Jək:ər         -           Tea         tfaj         -           Turmeric         həldi         -           Chilli         mirtf         mirtfë           Wheat         gehü         gehü           Honey         Jehed         Jehed           Spoon         tfəm:ətf         tfəm:ətf	Oil	ţel	-
Rice (raw)         tfawel         -           Sugar         Jek:er         -           Tea         tfaj         -           Turmeric         heldi         -           Chilli         mirtf         mirtfe           Wheat         gehũ         gehũ           Honey         Jehed         Jehed           Spoon         tfem:etf         tfem:etf	Onion	$_{ m pjaz}$	pjaz
Sugar Tea  tfaj - Turmeric həldi - Chilli mirtf mirtf Wheat gehü gehü Honey  fehed  fehed  tfəm:ətf  tfəm:ətf	Potato	alu:	alu:
Sugar Tea  tfaj - Turmeric həldi - Chilli mirtf mirtf Wheat gehü gehü Honey  fehed  fehed  tfəm:ətf  tfəm:ətf	Rice (raw)	tfawəl	-
Tea         tfaj         -           Turmeric         həldi         -           Chilli         mirtf         mirtfë           Wheat         gehũ         gehũ           Honey         fehed         fehed           Spoon         tfəm:ətf         tfəm:ətf		∫ək:ər	-
Turmeric həldi - Chilli mirtf mirtfe Wheat gehü gehü Honey fehed fehed Spoon tfəm:ətf tfəm:ətf			-
Chilli mirtf mirtfe Wheat gehũ gehũ Honey fehed fehed Spoon tfəm:ətf tfəm:ətf			-
Wheat Honey $geh\tilde{u}$ fehed $geh\tilde{u}$ fehedSpoon $fehed$ $fehed$	Chilli		mirt∫ẽ
Honey Jehed Jehed Spoon tjem:etj tjem:etj			
	Spoon	tfəm:ətf	tfəm:ətf
zeron (ronnie bin) beren beren	Belan (rolling pin)	belən	belən

Continued on the next page.

English word	Singular	Plural
Chaklaa (rolling board)	tfəkla	tfəkle
KaRhaaii	kər <sup>n</sup> ai	$ m k$ ə $ m r^{ m h}aij  m  ilde{a}$
Tawaa	təwa	təwe
Spear	$b^{\rm f}$ ala	$b^{\rm f}$ ale
Fire	aig	-
Ashes	$ m rak^h$	$ m rak^h$
Cloud	baːd̞əl	ba <b>:</b> dəl
Dust	$\mathrm{d}^{\mathrm{h}}\mathrm{u:}\mathrm{l}$	-
Earth (as in land)	miţ:i	-
Fog	kohra	-
Ice	bərəf	-
Moon	ʧãnḍ	ʧãnḍ
Sun	su:rəʤ	su:rəф
Star	tara	tare
Mountain	pərbəţ	pərbə <u>t</u>
Rain	bari∫	bari∫ẽ
River	nədi:	$_{ m nedij ilde{a}}$
Road	$_{ m seg}$	səţkẽ
Sand	ret	-
Sea	$\operatorname{səməndər}$	$\operatorname{semender}$
Sky	aːkaː∫	-
Snow	$_{ m him}$	-
Stone	pəţ:ʰər	pəţ <b>ː</b> ʰər
Water	pani	pani
Wind	həva	həvaẽ
Woods	ləkdi	ləkdijã
Forest	ժշոցəl	фəŋgəl
Air	həva	həvaẽ
Draught	əkaːl	əka:l
Flood	$\mathrm{bar}\mathfrak{r}^{\mathrm{fi}}$	$\mathrm{bar}\mathfrak{r}^{\mathrm{fi}}$
Pond	tala:b	tala:b
Lake	sərovər	sərovər

End of the table.

# Abbreviations

```
First person 2, 3, 5
                                           DEFTN Default number 3, 4
Ι
        Second person 2, 3, 5, 7
                                                   Demonstrative 4
2
                                            \mathbf{DEM}
        Third person 2, 5
                                                    Ergative 3
                                            ERG
3
\mathbf{AGR}
        Agreement 3, 4, 7
                                            \mathbf{F}
                                                    Feminine 3-5
                                                    Honorific 2, 3, 5
        Dative 3
\mathbf{DAT}
                                            HON
DEFTG Default gender 3, 4
                                            \mathbf{M}
                                                    Masculine 3-5, 7
```

N	Neuter 5	PROX	Proximal 4
OBL	Oblique 3	PRS	Present 3, 4
$\mathbf{PFV}$	Perfective 3, 7	PST	Past 4
$\mathbf{PL}$	Plural 2, 4, 5, 7	$\mathbf{SG}$	Singular 2-5, 7