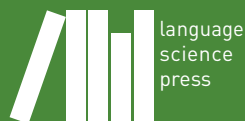


A grammar of Yakkha

Diana Schackow

Studies in Diversity Linguistics 7



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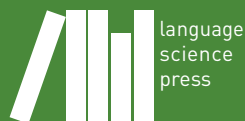
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Contents

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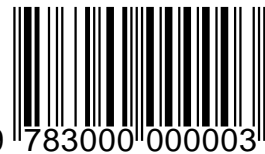
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Contents

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Finally, I thank Lennart (again): for making those Nepal journeys “our” journeys.

Abbreviations

Linguistic abbreviations

1,2,3	person (1>3: first acting on third person, etc.)
SG/DU/PL/NSG	numerus: singular, dual, plural, nonsingular
A	most agent-like argument of a transitive verb
ABL	ablative
ADD	additive focus
AFF	affirmative
ALT	alternative
AUX	auxiliary verb
BEN	benefactive
B.S.	Bikram Sambat calender, as used in Nepal
CAUS	causative
CL	clause linkage marker
COM	comitative
COMP	complementizer
COMPAR	comparative
COMPL	completive
COND	conditional
CONT	continuative
COP	copula
CTMP	cotemporal (clause linkage)
CTR	contrastive focus
CVB	converb
EMPH	emphatic
ERG	ergative
EXCL	exclusive
EXCLA	exclamative
G	most goal-like argument of a three-argument verb
GEN	genitive
GSR	generalized semantic role
HON	honorific

Abbreviations

HORT	hortative
REP	reportative marker
IGN	interjection expressing ignorance
IMP	imperative
INCL	inclusive
INF	infinitive
INIT	initiative
INS	instrumental
INSIST	insistive
INT	interjection
IRR	irrealis
ITP	interruptive clause linkage
LOC	locative
MDDL	middle
MIR	mirative
NATIV	nativizer
NC	non-countable
n.a.	not applicable
n.d.	no data
NEG	negation
Nep.	Nepali
NMLZ	nominalizer
NPST	non-past
OPT	optative
P	most patient-like argument of a transitive verb
POL	politeness
PLU.PST	plupast
PRF	perfect tense
POSS	possessive (prefix or pronoun)
PROG	progressive
PST	past tense
PST.PRF	past perfect
PTB	Proto-Tibeto-Burman
PURP	purposive
Q	question particle
QUANT	quantifier
QUOT	quotative
RC	relative clause
RECIP	reciprocal
REDUP	reduplication

REFL	reflexive
REP	reportative
RESTR	restrictive focus
S	sole argument of an intransitive verb
SBJV	subjunctive
SEQ	sequential (clause linkage)
SIM	simultaneous
SUP	supine
T	most theme-like argument of a three-argument verb
TAG	tag question
TEMP	temporal
TOP	topic particle
TRIPL	triplication
V2	function verb (in complex predication)
VOC	vocative

Abbreviations of kinship terms

B	brother
BS	brother's son
BD	brother's daughter
BW	brother's wife
e	elder
D	daughter
F	father
FB	father's brother
FF	father's father
FM	father's mother
FZ	father's sister
H	husband
M	mother
MB	mother's brother
MF	mother's father
MM	mother's mother
MZ	mother's sister
S	son
W	wife
y	younger

Abbreviations

Z	sister
ZS	sister's son
ZD	sister's daughter
ZH	sister's husband

1 Introduction

1.1 Aims of this grammar

This work is the first comprehensive description of the Yakkha language (ISO-639: ybh), a Kiranti language spoken in Eastern Nepal. The primary focus of this work is on the dialect spoken in Tumok village.

The grammar is intended to serve as a reference to scholars interested in linguistic typology and comparative studies of Tibeto-Burman and Himalayan languages in general, and also as a foundation for members of the Yakkha community to aid future research and activities aiming at documenting and preserving their language.

The grammar is written in a typological framework. Wherever possible I have tried to incorporate a historical perspective and comparative data in explaining how a particular subsystem of the grammar works. For the sake of reader friendliness and to ensure long-term comprehensibility, the analyses are not presented within any particular theoretical framework, and terms that strongly imply a particular theory have been avoided as far as this was possible.

Preparing a grammar can be a simultaneously satisfying and frustrating task, both for the same reason: the sheer abundance of topics one has to deal with, which makes grammars very different from works that pursue more specific questions. Necessarily, a focus had to be set for this work, which eventually fell on morphosyntactic issues. Verbal inflection, transitivity, grammatical relations, nominalization, complex predication and clause linkage are dealt with in greater detail, while other topics such as phonology, the tense/aspect system and information structure leave much potential for further research. Since this is the first grammatical description of Yakkha, I have decided to include also the topics that are analyzed in less detail, in order to share as much as possible about this complex and intriguing language.

1.2 How to use the grammar

1.2.1 Structure of the book

Following the well-established traditional order, I will provide some background on the language and its speakers (Chapter ??), and treat the most important grammatical aspects of the language successively: phonology (Chapter ??), morphology (Chapters ?? – ??), syntax (Chapters ?? – ??) and, albeit briefly, discourse-structural particles and interjections (Chapter ??). Section ?? in this chapter provides a typological overview and highlights the main features of Yakkha by means of simple examples. Appendices contain (a) three narrative texts and (b) charts with the complex kinship terminology. The book also includes a subject index and an index to the grammatical morphemes found in Yakkha, in order to make the information on particular topics easily accessible.

1.2.2 Orthography and transliterations

The orthography used in this grammatical description does not represent the phonetic level, because it is impractical to note down every phonetic difference and individual variation, especially since a phonetic analysis is not the major goal of this work. The orthography does not represent the phonemic level either, because Yakkha has a complex system of morphophonological rules, so that the pronunciation may show considerable deviations from the underlying forms. This is the reason why I use a representation on the allophonic level, including allophones that are the result of voicing, assimilations and other morphophonological operations. Most examples in Chapter ?? on the phonology are supplemented by the underlying forms (in slashes), in order to demonstrate the morphophonological processes.

While the orthography employed here is based on IPA, some deviations have to be noted: following the common orthographic traditions found in descriptions of Tibeto-Burman languages, the symbol <y> is used for the palatal approximant (IPA: [j]), <c> is used for the alveolar fricative (IPA: [ts]), and <ch> stands for its aspirated counterpart (IPA: [ts^h]). Aspirated consonants are written <ph>, <th>, <kh>, <wh>.

<mh>, <nh>, <ŋh>. Geminated consonants are written with double letters, e.g. [mm] or [ss]. Yakkha has several prefixes that have the phonemic value of an unspecified nasal. The nasal assimilates to the place of articulation of the following consonant. I do not use a special character for the nasal, but write it as it appears, i.e. as [m], [n] or [ŋ]. If the underlying form is provided, it is written /N/.

Nepali lexemes, used for instance when referring to sources of loans, are provided in the International Alphabet of Sanskrit Transliteration (IAST). Common place names are generally not transliterated, but provided in a simplified orthography that is generally found in local maps.

Yakkha does not have a writing tradition, but over the last few decades a few written materials have been published locally (cf. §??), using the Devanagari script, with varying orthographies. Devanagari is not ideal for Yakkha because it does not have a grapheme for the glottal stop, but a number of solutions have been used in these language materials, such as writing <ʔ> or using the grapheme for a central vowel <ə> together with a *virām* <̣> (indicating that the inherent vowel should not be pronounced in the Devanagari script). Devanagari is not used in this book, but I have used the option that incorporates <ʔ> into Devanagari in the Yakkha-Nepali-English dictionary that has been composed alongside this grammar.¹

1.2.3 Glossing and further conventions

The purpose of the glosses is to facilitate understanding the examples, which necessarily entails a simplification of the facts. The labels used in the glosses do not represent analyses. This is particularly important with regard to the person inflection. As is typical for Kiranti languages, an inflected form cannot be neatly segmented into straightforward form-function correspondences (though from a Kiranti perspective, the verbal inflection of Yakkha can be considered as rather simple). To provide an example, the transitive person marking on the verbs has labels such as ‘1pl.A’ (for the marker *-m*) in the glosses, so that the reader can identify the reference of a marker in a particular person configu-

¹ Cf. <http://wwwstaff.eva.mpg.de/schackow/?nav=dictionary>

ration. The actual distribution of these markers is likely to be more narrow or wider than the gloss labels suggest (cf. §??). But glossing e.g. the above-mentioned marker with ‘1/2pl.A>3.P’ would result in cryptic glosses that make reading the examples a rather cumbersome task.

Categories that have no corresponding overt marker, such as the subjunctive, are represented in square brackets, e.g. [SBJV]. This may have two reasons: either the morpheme is zero, or the morpheme got deleted in the surface form due to morphophonological processes. The nominative, which is also zero, is never written in the glosses. It is implied when a noun appears without an overt case marker.

The category labels are congruent with the Leipzig Glossing Rules,² with Yakkha-specific category labels added where necessary. All abbreviations are listed on page ??.

Language-specific morphological categories such as the Past Subjunctive mood or the Ablative case are capitalized, to distinguish them from universal categories.

When kinship terms are used in the glosses, they are abbreviated according to common practice: lower case *e* and *y* stand for ‘elder’ and ‘younger’, upper case *M* stands for ‘mother’, *F* stands for ‘father’, *Z* stands for ‘sister’, *B* stands for ‘brother’, *W* stands for ‘wife’, *H* stands for ‘husband’, *S* stands for ‘son’, *D* stands for ‘daughter’. Combinations of them are read like possessive phrases, e.g. *FeZH* stands for ‘father’s elder sister’s husband’.

In the texts, and in some of the Nepali literature cited, the Bikram Sambat (also Vikram Samvat) calendar is used. This is the official calendar in Nepal, and it is 56.7 years ahead of the solar Gregorian calendar. Sources using this system have ‘B.S.’ written behind the year.

The Yakkha examples that are provided in this grammar contain references to the corpus, in square brackets. Examples without such references are from elicitations that have not been recorded.

1.2.4 Notes on terminology

Nominalization

² Cf. <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>.

Nominalization is a versatile strategy in Sino-Tibetan languages, and its functions reach well beyond the classical uses of nominalization, which has given rise to the term *Standard Sino-Tibetan Nominalization* (Bickel1999Nominalization). Since also relative clauses, complement clauses and main clauses can be noun phrases structurally, the reader should note that this work employs a very liberal understanding of the term nominalization, as is commonly found in works on Sino-Tibetan languages. Alternatively, one could have made up new labels for each function of a nominalizer, such as *attributivizer*, *complementizer*, *factuality marker*, but then, the functional connection between these uses would have been obscured, especially since grammars are rarely read chronologically. I found that this use of the term puzzled readers and hearers who are not familiar with Sino-Tibetan languages. Still, I decided to retain the label *nominalization* in this work also for the less canonical uses of nominalization, in order to keep functional and historical connections maximally transparent.

A similar issue is the employment of case markers in clause linkage. I retained the case labels also when these markers attach to (not necessarily nominalized) clauses as clause linkage markers. Especially if one case marker is highly multifunctional in clause linkage, it is futile to find new labels for each function (the comitative marker =*nun* is an example, see Chapter ??).

Generalized Semantic Roles (GSRs)

I have analyzed Yakkha argument structure and grammatical relations by looking at how generalized semantic roles (GSR) are realized and aligned in morphology and syntax, following the methodology of Bickel2010_Grammatical and Witzlack2010_Typological GSRs are defined by their semantic properties and they are always determined in relation to a particular predicate. For instance, the most agent-like argument (A) of *mokma* ‘hit’ is the hitter, and the most patient-like argument (P) is the hittee. The sole argument of an intransitive verb is the S argument. Analogously, one can identify the most goal-like argument (G) and the most theme-like argument (T) of three-argument constructions. The identification of GSRs purely follows semantics, and is determined regardless of how

the arguments are realized in morphology and syntax. For instance, the most agent-like arguments of experiential predicates such as ‘love’ and ‘be disgusted’ (i.e., the experiencers) are realized as possessors in one particular verb class in Yakkha.

Such an approach is necessary because Yakkha does not have a dominant alignment type, and thus, a morphologically and syntactically consistent notion of subject and object cannot be determined. In converbal constructions, S and A align, while in case marking and in some complement constructions S and P align. Nominalization and relativization constructions present a mixed picture. Marginally (only in verbal person marking and in complement clauses), the privileged argument can also be determined by reference and by information structure. The most bewildering diversity of alignment types is found in the verbal person marking.³

The Yakkha verb, if transitive, shows agreement with both arguments. To identify the respective morphology, I use the terms *(transitive) subject agreement* and *(transitive) object agreement*. It should be kept in mind that these labels do not imply any particular formally unified behavior, neither with respect to case and person marking nor with respect to the choice of pivots in any construction. In the glosses, the labels ‘A’ and ‘P’ are used, since in the standard frame of argument realization markers referred to by ‘A’ index A arguments and markers referred to by ‘P’ index P arguments. This need not be the case, however, as some experiencer arguments might be realized as P morphologically, e.g. in experiential verbs such as *khikma* ‘taste bitter to someone’ (cf. Chapter ??).

1.3 Data sources

1.3.1 Fieldwork

The material used to write this grammar was collected during four field trips between 2009 and 2012, amounting to roughly one year altogether. I have spent most of the time in Tumok (Nepali: Tamaphok) village,

³ This diversity is not random and has parallels in the related languages, cf. §??.

with occasional visits to the surrounding villages Waleng (Nepali: Madi Mulkharka), Mamling, Yaiten (Nepali: Dandagaun), Hombong and to the market town Mudhe Saniscare. Tumok is a night's and half a day's bus ride away from Kathmandu (via Dharan, Dhankuta and Hile). One gets off the bus in Mudhe Sanischare and walks down to Tumok village for another hour or two.⁴

During the first field trip in 2009 Kamala Koyongwa travelled with me, helping me in many ways. From the first year on I stayed with Kamala Linkha, a teacher at the Shree Chamunde Higher Secondary School in Tumok, who became my friend and also my main Yakkha teacher, simply by sharing her everyday life with me. She never grew tired of explaining her language and aspects of Yakkha life to me. Magman Linkha, a teacher at the same school, has provided me with numerous beautifully-told narratives. He also helped me to check transcriptions and dictionary entries, patiently answering my many questions. Since he is himself engaged in various activities aiming at documenting and preserving his cultural heritage, he was also my most important source regarding sociolinguistic and ethnographic questions. In 2010, Kamala's niece Man Maya Jimi, a student who also works in adult literacy education programs, started working with me and proved to be a patient and thoughtful consultant in elicitations, transcriptions, translations and dictionary checks. In Kathmandu, I also had several valuable elicitation sessions with Kaushila Jimi and her son Sonam as well as with Visvakaji Kongren.

Figure 1.1: My main Yakkha teachers: Kamala Linkha, Man Maya Jimi, Magman Linkha

During the early trips (2009 and 2010) I recorded texts from various genres (legendary and autobiographical narratives, spontaneous conversations, songs, pear stories, procedural descriptions) and tried to gather as much language data as possible while living in the village.

⁴ Alternatively, one may take a domestic flight to Tumlingtar and try to catch a bus or a jeep there, but since the transport situation was not reliable in Tumlingtar in 2009 and 2010, I resorted to making the journey to the east by bus in my later field trips (2011 and 2012).

1 Introduction

In total, I recorded utterances from 22 different speakers. The youngest person recorded was 16 years old, the oldest people were above 60 years. To each person recorded I have explained the purpose of the recordings and my plan to archive them online. Their consent is mostly found as part of the recordings, usually at the end of the files. After analyzing the data in Germany, I used the later trips (2011 and 2012) mainly for refined elicitations and data checking, with the consultants mentioned above in Tumok and in Kathmandu.

In the elicitations, relying on nonverbal stimuli in the natural environment proved to be much more productive than prepared questionnaires or audiovisual stimuli. The only stimuli that I have used were the Pear Story (Chafe1980The-Pear) and the Cut and Break Clips (Bohnenmeyeretal2010_cut). Questionnaires that were used included the questionnaire from the Leipzig Valency Classes Project (Max Planck Institute for Evolutionary Anthropology), the questionnaire from the project on referential hierarchies in three-participant constructions (University of Lancaster) and the Questionnaire for Transitivity/Detransitivizing Verb Systems (by Johanna Nichols). The other topics were elicited with questionnaires compiled by myself and on the spot when certain topics came up during transcriptions and checks of the lexical data. Elicitations on clause linkage in 2012 were partly undertaken together with Lennart Bierkandt for a co-authored paper (Bierkandtetal_Scope).

1.3.2 The corpus

The structure and content of the current Yakkha corpus is displayed in Table ?? . The corpus contains 3012 clauses and roughly 13.000 annotated words. The texts are transcribed and annotated audio-recordings of roughly 3 hours length. The audio recorder used is an Olympus Linear PCM Recorder LS-11. The texts of the genre *legacy data* are only available in written form, using Devanagari script. They are taken from school books (Jimi2009Engka-Yakkha; Jimi2010Engka-Yakkha) and from narratives that originated in a workshop organized in 2012 by the Mother Tongue Center Nepal (Jimee2012_Casuwa; Jimee2012_Owl; Linkha2012_Ashes). I have transliterated them into the orthographic representation used in this work, with slight adjustments where the

orthographies used were rather impractical, for instance when they lumped together the voiceless and voiced consonants or /r/ and /l/ (which is the case in the above-mentioned school books). Researchers using the corpus should be aware of the fact that many neologisms are used in written Yakkha that are not (yet) established in the spoken language.

Table 1.1: Content of the annotated Yakkha corpus

GENRE	NUMBER OF RECORDINGS	RECORDS (roughly corr. to clauses)
narratives	8	488
conversations	5	1336
pear stories	4	225
songs	3	40
legacy data (written)	5	595
texts on tradition and material culture	3	328
	28	3012

The texts are labelled as follows: a unique identifier, followed by an underscore and a three-letter genre code, followed by an underscore and the number of the text from that particular genre. For example, a text coded ‘12_nrr_03.wav’ is the twelfth recording in total and the third text of the genre ‘narrative’; ‘12_nrr_03.txt’ is the corresponding text file. These labels (including the record number) are provided when the examples are from the corpus; when no such label is provided, the examples are from elicitations or from unrecorded spontaneous speech. The applications used for annotation and time alignment were Toolbox⁵ and ELAN.⁶

⁵ Toolbox is free software developed by SIL, see <http://www-01.sil.org/computIng/toolbox/index.htm>.

⁶ ELAN is free software developed by the Language Archive of the Max Planck Institute for Psycholinguistics in Nijmegen, see Wittenburg2008_Annotation URL: <http://tla.mpi.nl/tools/tla-tools/elan/>;

1 Introduction

The genre codes are displayed in Table ?? . The entire corpus is accessible online via the Endangered Languages Archive (ELAR).⁷

Table 1.2: Text genres and codes

CODE	GENRE
nrr	narrative
cvs	conversation
sng	song
mat	description of material culture
tra	description of traditions
pea	pear story
par	elicited paradigm
leg	legacy data (written)

1.3.3 The lexical database

The lexical database⁸ contains 2429 entries, all checked with at least two speakers. It contains grammatical, semantic, phonological and ethnographic notes as well as botanical terms (relying on the Nepali translations given in **Manandhar2002_Plants** and occasionally **Turner1931A-Comparative**). One may also browse for parts of speech and for semantic categories, if one is interested in particular semantic domains like body parts, kinship, spatial orientation, colour terms etc. A digital community version of the dictionary (using Lexique Pro),⁹ with the Yakkha entries in Devanagari, can be found online.¹⁰

⁷ <http://www.hrelp.org/archive/>. The annotations in this work may, in a few cases, deviate from the annotations in the archived corpus, as upon closer inspection during the analyses some minor adjustments were inevitable. The examples as they are analyzed and annotated in this work represent the most recent state of analysis.

⁸ Archived at the Endangered Languages Archive (ELAR) together with the corpus, see <http://www.hrelp.org/archive/>.

⁹ See <http://www.lexiquepro.com/>.

¹⁰ See <http://dianaschackow.de/?nav=dictionary>. Even though the database has been carefully checked, it is likely that further corrections and additions will be made in

1.4 Earlier studies on Yakkha language and culture

Material on the Yakkha language that is available beyond local sources is exceedingly rare. The oldest source is a wordlist in **Hodgson1857_Comparative**. A chapter in the Linguistic Survey of India provides a brief introduction and some Yakkha texts that were collected with Yakkha speakers who had migrated to Darjeeling (**Grierson1909Linguistic**).¹¹

More recent works on the language are a glossary (**Winter1996Glossary**), a Yakkha-Nepali-English dictionary (**Kongren2007Yakkha**), two articles about the inflectional morphology, both based on the same verbal paradigm collected by Gvozdanović (**Gvozdanovic1987How**; **Driem1994The-Yakkha**), and an article by myself on three-argument constructions (**Schackow2012_Referential**).

Research on cultural and political aspects has been undertaken by **Subba1999Politics** and by Russell **Russell1992_Yakha**; **Russell1997Identity**; **Russell2000_Missing**; **Russell2004Traditions**; **Russell2007Writing**; **Russell2010_Perception**. Recently, two M.A. theses on aspects of Yakkha culture have been completed in Nepal, one thesis on culture and adaptation by **Rai2011_Nature** and one thesis on kinship terms by **Linkha2013_kinship**. Ethnographic introductions in Nepali can be found by **Kongren2007Indigenous** and by **Linkha2006Yakkha** the former containing also some English chapters. Further locally available materials in Yakkha and Nepali are a collection of poems (**Dewan2001Opchyongme**) and a collection of thematically ordered wordlists and articles on the Yakkha traditions (**Linkha2005Yakkha**). For a more detailed bibliography of the works on Yakkha that were published in Nepali the interested reader is referred to **Rapachaetal2008Indo**

1.5 Typological overview of the Yakkha language

The following brief overview is intended for the reader who is not familiar with Kiranti languages or other Sino-Tibetan languages in general. It provides basic information on the most important features of the language.

the future.

¹¹ This source and **Russell1992_Yakha** use a spelling <Yakha>, but the correct spelling is <Yakkha>, since the first syllable is closed by /k/. In contemporary sources, also in Devanagari, the language name is always written as <Yakkha>.

1.5.1 Phonology

Yakkha has five vowel phonemes (/i/, /e/, /a/, /o/ and /u/). Diphthongs are rare and can mostly be traced back to disyllabic structures. The basic distinctions in the consonant phonemes, according to the place of articulation, are bilabial, alveolar, retroflex, palatal, velar and glottal. Plosives, the affricate and the bilabial glide have an aspirated and an unaspirated series. The maximal syllable structure is CCVC. Complex onsets originate in disyllabic structures too; they consist of sequences of obstruent and lateral, rhotic or glide. The syllable coda is mainly restricted to nasals and unaspirated plosives. The morphophonological processes are manifold and very complex in Yakkha, with each rule applying to its own domain (discussed in §??). A feature located at the boundary between phonology and morphology is a process of copying nasal morphemes in the verbal inflection (discussed in §??). This process is typical for Kiranti languages.

1.5.2 Word classes

Morphology and syntax clearly distinguish nominal and verbal classes in Yakkha (see Chapters ?? and ??). Word classes appearing in the noun phrase are demonstratives, pronouns, quantifiers and (marginally) numerals (see Chapter ??). Numeral classification exists, but it plays only a very marginal role. The verb shows complex inflectional morphology, resulting in hundreds of possibilities of inflection for each verbal stem.

Less clear is the distinction of adjectives and adverbs, as many of them derive from verbal roots. However, the salience of reduplication and rhyming patterns in noun-modifying and verb-modifying lexemes justifies treating them as separate word classes (see Chapter ??). Rhyming and reduplications, often combined with ideophones, almost exclusively feature in the classes of adjectives and adverbs in Yakkha.

Other word classes constitute closed classes, such as conjunctions, postpositions, interjections and discourse-structural particles (see Chapters ?? and ??). The postpositions are partly derived from relational nouns.

1.5.3 Nominals

Yakkha nouns can be simple or compounded out of several nominal roots. There are several nominalizers in Yakkha, some deriving nouns (*-pa* and *-ma*), some constructing noun phrases (*-khuba*, *-khuma* and *=na/=ha*).

Nouns can be inflected by possessive prefixes, alternatively to using possessive pronouns (compare (1a) and (1b)). The possessive prefixes are very similar in form to the possessive pronouns. Case and number markers are clitics; they attach to the whole noun phrase. Yakkha has an unmarked nominative, an ergative/instrumental *=ŋa*, a genitive *=ka*, a locative *=pe*, an ablative *=phaŋ*, a comitative *=nuŋ*, and further markers with less central functions, mainly from the comparative domain. Argument marking shows reference-based and word class-based alternations (discussed in §?? for the ergative case and in §?? for three-argument constructions).

- (1) a. *a-paŋ=be*
 1SG.POSS-house=LOC
 ‘in my house’
 b. *ak=ka paŋ=be*
 1SG.POSS=GEN house=LOC
 ‘in my house’

1.5.4 Verbs

The inflected verb indexes agents and patients of transitive verbs and expresses many grammatical categories (tense/aspect, mood, polarity (see (2)). This example also shows the above-mentioned process of nasal copying; suffix *-m* appears twice in the suffix string. Person (including clusivity), number and syntactic role marking interact in intricate ways in the person marking paradigm (see §??). As example (2) shows, the Yakkha verb is mainly suffixing; there is only one prefix slot.

- (2) *n-dund-wa-m-ci-m-ŋa-n=ha*
 NEG-understand-NPST-1PL.A-NSG.P-1SG.A-EXCL-NEG=NMLZ.NSG
 ‘We do not understand them.’

Yakkha has a very productive system of complex predication, where several verbal roots are concatenated to yield a more specific verbal meaning (discussed in Chapter ??). In complex predicates, the first verb carries the lexical meaning, while the second verb adds a further semantic specification, for instance regarding aktionsart, the spatial directedness of the event, or the affectedness of some argument. In (3), the second verb carries a benefactive notion, adding a beneficiary argument to the argument structure of the lexical verb. Complex predicates trigger recursive inflection, as shown here by the imperative marker *-a*, that appears twice (treated in detail in Chapter ??). Predicates can also be compounded by a noun and a verb (see Chapter ??).

- (3) *ka katha lend-a-by-a-ŋ*
 1SG story exchange-IMP-V2.GIVE-IMP-1SG.P
 ‘Tell me a story.’

1.5.5 Syntax

Yakkha phrase structure is overwhelmingly head-final, with the nominal head at the end of the noun phrase, and with the verb being the final constituent of the clause (see (4a)). In complex clauses, the subordinate clause generally precedes the main clause (see (4b)). Nominalizers and markers of clause linkage can follow the verb. Permutations of the word order are possible (see Chapter ??); they follow discourse requirements. Arguments are frequently dropped, resulting in a low referential density.

- (4) a. *raj=ŋa u-ma kheps-u=na*
 Raj=ERG 3SG.POSS-mother hear[PST]-3P=NMLZ.SG
 ‘Raj heard his mother.’
 b. *tumok=pe tas-u-ŋ=hoŋ*
 Tumok=LOC arrive[PST]-3P-1SG.A=SEQ
a-phu chimd-u-ŋ=na
 1SG.POSS-elder_brother ask[PST]-3P-1SG.A=NMLZ.SG
 ‘When I arrived in Tumok, I asked my elder brother (about it).’

The argument structure in Yakkha distinguishes several valency classes, discussed in Chapter ???. The basic distinction is that between intransitive and transitive verbs, which is also reflected in two different verbal inflectional patterns. There is a class of labile verbs, mostly showing an *inchoative/causative* alternation. Experiential predicates predominantly occur in a construction that treats the experiencer as the metaphorical possessor of a sensation or an affected body part (the Experiencer-as-Possessor Construction, see (5)).

- (5) a. *a-pomma=ci* *ŋ-gy-a=ha=ci*
 1SG.POSS-laziness=NSG 3PL-come_up-PST=NMLZ.NSG=NSG
 ‘I feel lazy.’
- b. *ka* *nda* *a-luŋma* *tuk-nen=na*
 1SG[ERG] 2SG 1SG.POSS-liver pour-1>2[PST]=NMLZ.SG
 ‘I love you/I have compassion for you.’

The argument structure can be modified, by means of derivations (causative), complex predication (benefactive, middle, reflexive), and an analytical construction (reciprocal), as shown in (6). Both the reflexive and the reciprocal construction make use of a grammaticalization of the verbal root *ca* ‘eat’.

- (6) a. *kiba=ŋa* *hari* *kisi-met-u=na*
 tiger=ERG Hari be_afraid-CAUS-3.P[PST]=NMLZ.SG
 ‘The tiger frightened Hari.’
- b. *nda* (*aphai*) *moŋ-ca-me-ka=na*
 2SG (self) beat-V2.EAT-NPST-2=NMLZ.SG
 ‘You beat yourself.’
- c. *kancin* [...] *sok-khusa* *ca-ya-ŋ-ci-ŋ*
 1DU [...] look-RECIP eat.AUX-PST-EXCL-DU-EXCL
 ‘We (dual, excl) looked at each other.’

Furthermore, morphologically unmarked detransitivizations are possible (marked only by a change in the person marking morphology). In this way, both antipassive and passive constructions may occur in Yakkha, sometimes leading to ambiguities. In (7), the person morphology on the verb is intransitive in both examples, signalling a third per-

1 Introduction

son singular subject of an intransitive verb, although *khemma* ‘hear’ is clearly transitive, and in most cases is inflected transitively (compare with (7c)). While (7a) is a passive structure, (7b) is an antipassive. Unmarked antipassives (the morphosyntactic demotion of a generic or unspecific object) are wide-spread in Kiranti languages, but unmarked passives are, to this point, only known in Yakkha. The more frequent structure is, however, the antipassive, which is not surprising given its older nature.

- (7) a. *ce?ya kheps-a-m=ha*
matter hear[3SG]-PST-PRF=NMLZ.NC
‘The matter has been heard.’
b. *Dilu ređio khem-me?=na?*
Dilu radio hear[3SG]-NPST=NMLZ.SG
‘Does Dilu listen to the radio (generally)?’
c. *pik=ŋa kiba kheps-u=na*
COW=ERG tiger hear[PST]-3P=NMLZ.SG
‘The cow heard the tiger.’

Yakkha does not have a dominant grammatical relation, both reference-based and role-based (ergative, accusative) alignment patterns are found, depending on the particular construction. Especially the verbal person marking system shows an incredible heterogeneity of alignment types, which is, however, not unusual in a Kiranti-wide perspective (see Figure ?? on page ??).

Nominalization is a core feature of Yakkha syntax (discussed at length in Chapter ??). The nominalizers have a wide range of functions, from nominal modification/relativization and complement clauses to marking independent clauses. The nominalizers *-khuba* and *-khuma* construct noun phrases (and relative clauses) with the role of S or A, while the nominalizers *=na* and *=ha* are almost unrestricted with regard to which participant they can relativize on (see (8)). The only relation not found with relative clauses in *=na* or *=ha* is A, which results in syntactic ergativity for relative clauses, since S and P are treated alike by this relativization and differently from A. The nominalizers *=na* and *=ha* are also frequently used to nominalize independent clauses, with the func-

tion of structuring information on the text level (see Chapter ??).

- (8) a. *heko=ha=ci mok-khuba babu*
 other=NMLZ.NSG=NSG beat-NMLZ boy
 ‘the boy who beats the others’
 b. *nna o-hop wa-ya=na sin*
 that 3SG.POSS-nest exist-PST[3SG]=NMLZ.SG tree
 ‘that tree where he has his nest’

Complement constructions show long-distance agreement, distinguishing various subtypes, each with its own configuration of person and case marking (see Chapter ??). There are two basic types: infinitival complement clauses and inflected complement clauses (see (9)). In this particular example, the same complement-taking verb *mi?ma* acquires two separate meanings, depending on whether the embedded structure is infinitival or consists of an inflected verb.

- (9) a. *ka khe?-ma mit-a-η=na*
 1SG go-INF think-PST-1SG=NMLZ.SG
 ‘I want to go.’
 b. *nda cama ca-ya-ga=na*
 2SG[ERG] rice eat-PST-2=NMLZ.SG
mi-nuη-nen=na
 think-PRF-1>2=NMLZ.SG
 ‘I thought you ate the rice.’

Adverbial clause linkage has three major types: infinitival clauses (see (10a)), converbs (see (10b)) and inflected adverbial clauses (see (10c)). The subtypes of these three basic types are discussed in detail in Chapter ?. Further conjunctions can connect clauses on the text level, such as *kha?niŋgo* ‘but’ and *nhana* ‘and then, afterwards’.

- (10) a. *uŋci=ηa men-ni-ma=ga cum-i*
 3NSG=ERG NEG-see-INF=GEN hide-1PL[PST]
 ‘We hid, so that they would not see us.’
 b. *o-pomma ke-saη ke-saη kam*
 3SG.POSS-laziness come_up-SIM come_up-SIM work

1 Introduction

cog-wa

do-NPST[3SG.A;3.P]

‘He does the work lazily.’

- c. *ka* *kucuma* *khas-a=nun*
1SG[ERG] dog be_satisfied[3SG]-SBJV=COM.CL
pi-η=ha
give[PST;3.P]-1SG.A=NMLZ.NSG
‘I fed the dog sufficiently (in a way that it was satisfied).’

2 The Yakkha language and its speakers

This chapter provides basic information on the geographic (§??) and cultural-historical background of the Yakkha language (§??), a genealogical classification of Yakkha as a member of the Kiranti language family (§??), and its sociolinguistic (§??) context. The reader should note that the following observations are not made by a trained anthropologist. An in-depth anthropological study is beyond the scope of this introductory chapter (see §?? for existing anthropological studies).

In this chapter, the term Kiranti can indicate both ethnic and linguistic affiliations. It refers to a group of roughly 30 ethnically and linguistically distinct, yet related, communities in eastern Nepal. The internal structure of the Kiranti group is complex, and linguistic classifications may deviate from ethnic classifications, cf. §?? below.

2.1 Geographical context

Nepal can roughly be divided into three geographical zones: the Himalayan range in the north, the middle hills (the Mahabharat range, stretching parallel to the Himalayan range) and the plains in the south (the Tarai). The Himalayan range is home to speakers of Tibeto-Burman languages. The plains are mostly inhabited by speakers of Indo-Aryan languages. Furthermore, a few Austroasiatic languages, one Dravidian language and an isolate (Kusunda) are spoken in Nepal. Speakers of Kiranti languages, including Yakkha (see Figure ??), inhabit the hilly area between the Likhu river in the west and the border with Sikkim in the east, with elevations between 1,500m and 2,700m. Kiranti settlements can also be found in the plains and in India (Darjeeling, Sikkim).

Figure 2.1: Location of the Yakkha region within Nepal (United Nations Map Centre: <http://www.un.org.np/resources/maps>, accessed on 17 January 2014)

The Yakkha region (i.e. the area inhabited by people who consider themselves Yakkha ethnically)¹ is located in the Koshi zone of the Eastern Development Region, in the south of Sankhuwa Sabha district and in the north of Dhankuta district (see the maps in Figure ?? and Figure ??). Within the region in Eastern Nepal commonly known as *Kirant* ('Kiranti area'), the Yakkha region belongs to the *Pallo Kirant* 'Far Kiranti area', located on the east of the Arun river.

The core Yakkha region contains the following Village Development Committees (VDCs):² Canuwa, Marek Katahare and Dandagaun in Dhankuta district, and Tamaphok (Tamfok in the map), Mamling, Ankhinbhuin, Madi Mulkharka, Madi Rambeni, Baneshwor, Chainpur, Kharang, Wana (Bana in the map), Siddhakali, Siddhapokhari and Syabun in Sankhuwa Sabha district. The Yakkha region is also known as the *Tin Thum* ('The Three Regions'): the *Das Majhiya* in the south, the *Panch Majhiya* in the middle and the *Panch Kapan* in the north (**Kongren2007Indigenous**), a distinction originating in the tax system that was enforced under the Gorkha rule in the 18th century. The language is only spoken by parts of the Yakkha population, being replaced by Nepali in almost half of the geographic area inhabited by Yakkha people. Curiously, the language proficiency decreases drastically towards the north of the Yakkha area (Magman Linkha, p.c.), contrary to the expectation that greater distance to the main roads and thus greater isolation should have had a positive effect on the preservation of a language.

Yakkha has at least four dialects (see §?? below). The focus of this work is on the Tumok dialect, named after the village where it is spoken (27.208°N, 87.384°E), in Tamaphok VDC.³ Tumok lies on the south-

¹ If the region were defined by linguistic criteria, it would be much smaller; see section ??.

² Nepal is administratively divided into 5 development regions, 14 zones, 75 districts and 3,913 village development committees (VDCs). Each VDC contains several villages and is further divided into numbered wards.

³ Tamaphok is also the Nepali name of Tumok. Many Yakkha villages have both a

Figure 2.2: Map of Sankhuwa Sabha district, with Yakkha villages in the south (**Joshi_Nepal_maps**)

Figure 2.3: Map of Dhankuta district, with Yakkha villages in the north
(Joshi_Nepal_maps)

western slopes of the Maya Khola valley.⁴ The Maya Khola flows north-west into the Piluwa Khola, which is a tributary of the Arun river (the main river in the region, partly flowing along the south-western border of Sankhuwa Sabha district). Tumok is located approximately 1500m above sea level. Villages in this hilly region generally spread over several hundred meters of altitude, because the houses are not built close to each other, allowing space for fields between them. The great extension of the villages may lead to climatic differences and to differences in the crop cycle even within one village. The speaker density in Tumok is very high, and even parts of the non-Yakkha population speak Yakkha in addition to Nepali.⁵ Figure ?? shows the view from Tumok towards the Himalayan range in the north.

Figure 2.4: Tumok at the end of the rainy season, Sept. 2012

Yakkha speakers can also be found outside the core area defined above. There are about 80 households in the south-east of Dhankuta district, in Mudhebas VDC, Kuruletenupa VDC and Bodhe VDC (Magman Linkha, p.c.). In Ilam district, a Limbu-speaking region bordering with India, Yakkha speakers are reported to live in Namsaling village, speaking a dialect that is perfectly intelligible with the Yakkha from the core area. Nowadays there are also many Yakkha people living outside the hills, in the city of Dharan (Sunsari district) and other places in the Tarai and in India (especially in Darjeeling and Sikkim). A common reason for migration is the search for land or employment. Of course, Yakkha are also found elsewhere in the world due to the high rate of Nepali

Nepali name and a Yakkha name. Impressionistically, Yakkha names are used to refer to particular villages, while Nepali names are used to refer to VDCs (which are in general conglomerations of several villages). This is also the case e.g. for Waleng (Nepali: *Madi Mulkharka*), Yaiten (Nepali: *Dandagaun*) and Angbura (Nepali: *Omruwa*).

⁴ *kholā* is a Nepali word for ‘little river’.

⁵ Among the non-Yakkha population, it is more common to speak Yakkha for members of castes that were perceived as “low” (according to Hindu social law) than for members of so-called “high” castes. Despite changes in the legal system, these distinctions still play a role in social practice and thus, it is more attractive for members of discriminated groups to learn Yakkha, while members of “high” castes often do not know any Yakkha, even after having lived in the area for decades.

emigration for the previously mentioned reasons as well as education.

The Yakkha region is surrounded by other Kiranti languages. Going clockwise, starting in the east, these are Limbu (including the Tamarkhole, Phedappe and Chatthare dialects). Athpare, Chiling, Belhare and Chintang follow in the south, Bantawa and Dungmali in the west, Mewahang, Lohorung and Yamphu in the north. This geographical classification has to be understood in an idealized sense. Most of the villages in Nepal are ethnically and linguistically diverse, so that one may also find Sherpa, Gurung, Tamang, Newari and Parbatiya (Nepali speaking) households in the Yakkha region.

2.2 Cultural and historical background

2.2.1 Kiranti

Kiranti (also Kirāt, Kirāta, Kirāṭi) nowadays refers to a set of roughly 30 communities speaking related languages, who inhabit the Himalayan foothills in Eastern Nepal and share key cultural practices, including nature worship and a body of oral knowledge, myth and ritual in which the veneration of ancestors plays a major role (known as *Munthum* in Yakkha). Within these parameters, however, there is considerable heterogeneity of cultural practices, beliefs and origin myths, and shifting ethnic and linguistic affinities do not seem to be uncommon (Yakkha itself being a prime example, as will be explained further below).⁶

We have very little historically verified knowledge about the Kiranti people.⁷ The term Kiranti comes from Sanskrit *kirāta* and dates back

⁶ Although this is commonly overlooked in current politics in Nepal, present-day ethnic distinctions are the product of several waves of migrations and millennia of mutual influence in the Himalayan contact zone of Indosphere and Sinosphere (terms from Matisoff, e.g. **Matisoff1990_On**). The perception of distinct “pure” and time-stable ethnic and linguistic groups presents a highly idealized picture that does not do justice to the complex social reality of a multi-ethnic country like Nepal. Most current ethnic identities have been shaped by mixing with other groups or by adapting to other groups in one way or another, and these processes are, of course, continuing in the present.

⁷ The work of renowned Limbu historiographer Iman Singh **Chemjong1967History** widely perceived as the major source on Kiranti history among the Kiranti people,

to Vedic texts such as the Atharvaveda, which is considered the oldest Veda after the Ṛgveda (**Driem2001Languages**). It is generally accepted by Nepali and foreign historians alike that kings known as Kiranti (or Kirāta) must have ruled over central Nepal before they were overthrown by the Lichhavis early in the first millennium CE (**Whelpton2005A-History**). However, the well-documented history of Nepal unfortunately only begins with the Lichhavi dynasty, so that it is not at all clear whether the ancient Kirantis were the forefathers of the Kiranti people who currently live in eastern Nepal. One should note that in the old Indian texts the term *kirāta* had a much broader reference, applying to Tibeto-Burman hill peoples in general (**Whelpton2005A-History**; **Schlemmer2003_New**). The self-designation Kiranti in the present sense came to be used only with the advent of the Gorkha kings, when a common Kiranti identity began to evolve under Hindu dominance (**Gaenszle2002_Remaking**). Before that era, there was no common feeling of being Kiranti: clan affinities were most important, and autonyms such as Khambu/Khombo (for the Rai) and Yakthumba (for the Limbu) were used among the Kiranti groups.

Present-day Kiranti legends trace the groups' origins to a variety of locales, from Tsang in Tibet to Varanasi in the Gangetic plains (see **Driem1987A-grammar** for Limbu), or places in the Tarai (see **Gaenszle2012_Where** for Mewahang).⁸ It is not known when and how the ancestors of the

uses the available sources (both western scholarly work and indigenous chronicles) with few epistemological criticisms, and does not provide sufficient evidence to be called historical in the academic sense. It is rather to be seen as an attempt to anchor Kiranti culture in the deepest past possible and the widest area possible, with evidence spanning large parts of Eurasia from Greece to Cambodia (**Schlemmer2003_New**). Despite its methodological shortcomings, Chemjong's work must be praised for its contribution to the acknowledgement and recognition of a distinct and unique Kiranti culture (see also **Gaenszle2002_Remaking**).

⁸ The Yakkha legends I recorded are about their ancestors' deeds and journeys in the area where present-day Yakkha people live. My own materials do not contain myths regarding a prior place of origin. This does not imply that there are no such myths. I have recorded only eight narratives, which is probably not even close to representative of what is still out there, unrecorded. In general, the Kiranti groups have a strong concern for the past and vibrant oral traditions in which origins and migrations are recalled for many generations (**Gaenszle2000Origins**; **Gaenszle2002_Remaking**).

Kiranti groups entered Nepal, but it is very likely that they came at least 2000 years ago from the east (**Driem2001Languages; LaPolla2001_Role; Gaenszle2002_Remaking**). Kiranti languages show striking similarities with rGyalrongic languages spoken in the South of China and with the extinct Tangut language, especially with regard to hierarchical patterns in the person marking system (see e.g. **DeLancey1981_Category; Ebert1990Evidence; LaPolla2007Hierarchical; Jacques2012_Agreement** and also §?? and §?? of this work), although direct contact between these groups has not been proven.⁹ Another argument for migration from the east is that those Tibeto-Burman groups that have entered Nepal via the north, such as the Tamangs for instance, show a close relation to Tibetan culture and Tibetan Buddhism (**LaPolla2001_Role**), while Kiranti culture is clearly distinct from Tibetan culture.¹⁰

The Kiranti peoples' more recent history has been described in various sources (**Caplan1970_Land; Pradhan1991The-Gorkha; Gaenszle2002_Remaking; Schlemmer2003_New; Whelpton2005A-History**) and will only be briefly summarized here. As a nation state, Nepal was founded by Pṛthvī Nārāyaṇ Śāha (1723-1775), the king from Gorkha¹¹ who conquered the area known as Nepal today. Seen as a hero by Nepali nationalists, for the ethnic minorities his name stands for the suppression of their cultures and languages. Local groups confronted the king and his successors with strong armed resistance, but eventually Gorkha rule was established. The Kiranti region, bordering British-ruled Sikkim in the East, was critical to maintaining the Gorkha rule, and in order to keep the Kiranti

⁹ There is a scholarly debate as to whether these similarities are Proto-Tibeto-Burman (and got lost in the other languages) or whether the groups showing hierarchical patterns in person marking form a separate branch of Tibeto-Burman (see e.g. **Driem1991Tangut; LaPolla2001_Role; DeLancey2010_Towards; Jacques2012_Agreement; LaPolla2012_Comments**). The debate boils down to the still unsettled question of whether Proto-Tibeto-Burman had person marking morphology or not, and it will probably only be settled once more data on Tibeto-Burman languages are available.

¹⁰ To provide a culinary example: fermented soybeans (*kinama* in Yakkha) are an integral part of the Kiranti cuisine. While this dish is not widely cherished outside the Kiranti sphere in Nepal, it is widespread in Northeast India (e.g. in Nagaland), and also known from Thailand, Burma, Korea and Japan (**Tamang2010_fermented**).

¹¹ Gorkha is a district in the Western Development Region of Nepal.

groups loyal, they were given a privileged status and a certain degree of autonomy. In a system known as *kipāt*, land rights were reserved for Kiranti people who owned the land by virtue of their ethnic affiliation. Local headmen were appointed to collect taxes. The titles given to them (Rai, Subba, Jimdar) are still reflected in contemporary Kiranti surnames. Later, the Gorkha kings changed their strategy and sought to control and assimilate the Kiranti region. Kiranti groups were officially incorporated into the caste system (as *matvāli jāt*, ‘drinking caste’), and the state encouraged Hindu settlers to move east. They were allowed to take control of land previously held by Kiranti people, thus systematically undermining the *kipāt* system. Brahmanic values became more influential, Nepali was propagated as the national language and attempts to express and preserve one’s ethnic identity were suppressed as threats to the nation state. On an everyday level, obviously some expression of ‘Kiranti-ness’ must have continued, because distinct Kiranti cultural practices are still present nowadays (see also the observations made by Russell2004Traditions).

Hindu dominance began to erode only recently, with the 1990 constitution, in which Nepal’s multi-ethnic and multi-lingual social reality was officially acknowledged for the first time (Article 4), and more so since the end of the monarchy in 2006. Currently, a new and strong sense of a common Kiranti identity is emerging, which can be attributed to the recent climate of rising ethnic consciousness (over the last two decades). The different Kiranti groups (Limbu, Rai, Yakkha, Sunwar) now share a newly-built temple in Sāno Hāttiban in the south of Kathmandu and they celebrate festivals together that were originally celebrated separately, on village level.¹² The mythical king Yalambar has undergone a revival as the legendary founder of the Kiranti dynasty, an iconic figure representing an idealized glorious past. A recently built and newly-renovated statue of Yalambar in the market town Mudhe Sanischare in Sankhuwa Sabha district may illustrate the perspective that Kiranti people themselves have on their origins (see Figure ??).¹³

¹² Cf. Gaenszle_Redefining on the changes that Kiranti culture and religion are currently undergoing now that more and more people live outside the rural homeland.

¹³ See e.g. Schlemmer2003_New for a critical assessment of the re-invention of the Kiranti past that came along with the ethnic revival in contemporary Nepal, in par-

Figure 2.5: The statue of the mythical Kiranti king Yalambar in Mudhe Sanischare

Another iconic figure for Kiranti identity is the 18th-century Limbu scholar Te-ongsi Sirijunga Xin Thebe (Sirijanga) from Sikkim, who is celebrated as the initiator of an ethnic awakening and as the creator of the Limbu script (legendary accounts state that he found and revived the script). He is widely perceived as a martyr for the Kiranti cause, because he was murdered by the Sikkimese Bhutia rulers, allegedly because they perceived his activities as a threat. He is usually depicted tied to a tree and bristling with arrows, for instance in a statue in Dharan (Tinkune), but also in icon-like prints and posters that can be found in people's homes.

2.2.2 The Yakkha

2.2.2.1 Ethnic affiliation

Within Kiranti, the largest subgroups are the Rai and the Limbu. While the Limbu speak a few very closely related languages, the term Rai is a broad category that subsumes at least 20 linguistically and ethnically distinct communities.

The Yakkha perceive themselves as closest to the Limbu both culturally and linguistically (see also **Russell1992_Yakha**). Marriages between Yakkha and Limbu are more common than between members of other Kiranti groups. The closest linguistic relative of Yakkha, however, is not Limbu, but the Belhare language, since Yakkha and Belhare share some innovations and unique features that are not found in any other Kiranti language (cf. §?? below). The most likely historical scenario is that the Yakkha have adapted culturally to the Limbu because the latter have been the economically and socially most powerful group in the region.

Formerly, the Yakkha were also known as Rai (**Russell1992_Yakha**).¹⁴

particular the widespread booklets and online publications that construct an ancient and glorious Kiranti past that is not grounded in historical evidence. Schlemmer notes that such a re-invention of history often originates from a mostly urban middle class that is disconnected from its rural homeland. According to my own observations, with the number of educated people rising in the villages, with roads being built and more people regularly commuting between cities and their villages, ethnic self-awareness is increasing also in the rural areas.

¹⁴ Russell suggests that the name Rai was used when communicating with outsiders

The Yakkha, however, stress that they neither belong to Rai nor to Limbu. In line with this, it is now popular to use *Yakkha* or one's clan name as surnames instead of the formerly used exonymic surnames *Dewan* and *Jimi* that originate in Nepali administrative titles given to local tax collectors by the Gorkha kings.¹⁵ Furthermore, origin myths that are known from many Rai groups, such as the story about Sumnima and Paruhang or the legends about the orphan hero Khocilipa/Khakculukpa (Ebert2003Camling; Gaenszle2000Origins) are not perceived as native to Yakkha and are not widely known.

The nature of the historical link to Belhare, which is spoken near Dhankuta, 50 kilometers to the south of the core Yakkha area, is not known with certainty, but it is worth noting that Dahal1985An-ethnographic¹⁶ mentions that a group of Yakkha families had been integrated into the Athpahariya (Athpare) society. Bickel1996Aspect notes that the people who speak Belhare are also known as Athpare, and that the two linguistic groups Athpare and Belhare are one group by cultural criteria: their languages are mutually unintelligible, which could be explained by such a migration scenario. This hypothesis is supported by the fact that other Yakkha groups have also out-migrated from the Yakkha homeland (cf. §??), most probably in search for arable land.

2.2.2.2 Language names

The term *Yakkha* is simultaneously used as a linguistic and as an ethnic name. Alternative names for the language are *Yakkha Ce?ya* (*ce?ya* meaning 'matter, talk, language') and *Jimi Bhasa*, the exonym used by Nepali speakers. As an ethnonym, the non-indigenous name *Jimi* is sometimes used synonymously with Yakkha. It is also a common surname for Yakkha people, introduced during the Gorkha rule. Titles such as *Dewan* and *Jimdar* (from Persian *jamindār*) were given to individuals and village headmen in the Yakkha area, in order to implement the

to benefit from the reputation of those Rai in the British Gurkha regiments. In present times, too, when talking about my research outside the Yakkha area, I was frequently confronted with the assumption that the Yakkha are a Rai group.

¹⁵ Cf. Doornenbal2009A-grammar for the same observation in Bantawa.

¹⁶ Cited in Russell1992_Yakha

Gorkha tax system, and they were adopted as surnames because of the power and high social status associated with them. Among the Limbu, the Mughal (Arabic) title *Subba* became a common surname, and among the Khambu, this happened with the title *Rai* (Whelpton2005A-History). Apart from these non-indigenous surnames, however, ancestral clan names play a vital role in social life and in the ritual sphere (see §?? below).

The first syllable of *Yakkha* is traceable to the Proto-Kiranti root **rok*, which is the Kiranti autonym and has no cognates outside Kiranti. Cognates are found e.g. in the Puma autonym *rakon* (Bickeletal2009Puma), in the Dumi autonym *ro?di* (Driem1993A-grammar) and in the Limbu autonym *yakthumba* (Driem1987A-grammar). The historical sound change from /r/ to /y/ is typical for Eastern Kiranti, to which Yakkha and Limbu belong. The neighbouring groups Lohorung, Yamphe and Yamphu also call their languages *Yakhaba* (Driem1994The-Yakkha),¹⁷ but their languages are clearly distinct from Yakkha.¹⁸ The second syllable *kha* might be traced back to the Proto-Tibeto-Burman root **ka* for ‘word, speech’ (Matisoff2003Handbook).

2.2.2.3 Subsistence and economy

The Yakkha are primarily agriculturalists. The main crops are maize (*calon*), rice (*cabhak*), millet (*pange*) and buckwheat (*khori?man*). They also grow soybeans (*cembek/chacek*), lentils (*tuya*), tea (Nepali *ciya*), cucumbers (*wabik*), tomatoes (*wariŋba*), onions (*chepi*), garlic (*maŋkhu*), yams (*khi*), potatoes (*sambakhi*), bananas (*camokla*), Indian leaf mustard (*yaro*), mushrooms (*mun*), and various kinds of greens, pumpkins and gourds. A typical household also has pigs, buffalos, oxen, chickens and goats. Pigs and chickens also feature prominently in the ritual design, as a sacrifice to the ancestors. Other means of subsistence are fishing, hunting and beekeeping.

The Yakkha press mustard oil (*kiwa*), they brew beer (*cuwa*), mostly

¹⁷ The marker *-ba* has the function of a nominalizer.

¹⁸ A folk etymology relates the language name to the lexeme *yaksa* ‘hut, resting place’ (Kongren2007Indigenous). This word is a Tibetan loan (*rgyags-sa*) that is also known in Nepali (Turner1931A-Comparative).

from millet, and they distill liquor (*chemha*), also from millet. Alcohol is not just a refreshment, but also a medium of social exchange (e.g. in marriages and funerals) and a sacrifice in the ancestral rituals (see also **Russell1992_Yakha**). A main source of income is the cultivation and trade of cardamom (mostly called *alenchi*, from Nepali, though the Yakkha term is *cokceru*). Furthermore, various fermented, durable dishes are prepared, most famously *kinama* (fermented soybeans). Traditional agricultural instruments are still used today, because it is impossible to cultivate the terraced fields with machines. Some villages have electric mills to grind the grains, but mostly this is done with grinding stones. According to my observations in Tumok, educated people who have an income as teachers or in other village-level government posts do not necessarily abandon agriculture, but try to maintain both means of subsistence.

Recruitment in the British Gorkha army has long been a source of income in the Kiranti groups in general. In recent decades, labour migrations to Arab countries, to Hong Kong, Singapore and Malaysia has increased. Most households I got to know in Tumok received some sort of support from family members working abroad.

2.2.2.4 Material culture

A typical Yakkha house (*pan*) is shown in Figure ?? . Yakkha houses (at least in Tumok) are white, with the lower part of the walls covered in red (a mixture of clay and cowdung). They are typically renovated once a year, before Dasain (the most important Hindu festival in Nepal), although the festival itself is not celebrated in Yakkha society anymore.¹⁹ The houses have blue and red wooden railings and window frames, some of them beautifully carved. Every house has a terrace (*omphu*), in which guests are usually received. The roofs are thatched with straw

¹⁹ The festival had been celebrated until recently, albeit, as argued by **Russell2004Traditions** with Yakkha-specific modifications. The recent abandonment of the Dasain festival can be understood as part of a broader process of de-Hinduization among the non-Hindu groups in Nepal. Other Hindu customs prevail, such as the question who may eat together, and who may serve food to whom.

or covered with tiles (or, as a recent development, tin).

Figure 2.6: A Yakkha house in Tumok village

The Yakkha have a rich tradition of processing bamboo (*phabu*). Bamboo products are abundant in all aspects of material culture, from house construction to manufacturing various kinds of sieves, baskets and the most delicate and tiny purses, combs and needles, as shown in Figure ??.

Another craft is weaving mats from straw and maize leaves. Furthermore, fabrics and shawls are produced on looms. The pattern found on traditional Yakkha shawls (*phopma*) is shown in Figure ??.

Figure 2.7: Bamboo products: *sigikma* ‘comb’, *kanyon* ‘chicken basket’, *phepi* ‘purse’

Figure 2.8: Yakkha *phopma* (shawl)

2.2.2.5 Social organization and religion

The Yakkha religious sphere and social organization are shaped by the pan-Kiranti tradition that is called *munthum* in Yakkha, in which the ancestors play a major role. The term *munthum* also refers to a body of orally transmitted texts in which the deeds and journeys of the ancestors come alive. Gaenszle_Redefining notes that, despite differences in ritual systems and practices, this ancestral tradition is shared by all Kiranti groups. The *munthum*

[...] comprises histories of the origin of the ancestors, beginning with the primal creation of the universe and the emergence of natural and cultural orders and continuing to the settlement of the ancestral territory. It also concerns the proper means of communicating with ancestors and ritually maintaining the order they have established. The term, then, has an additional meaning: it evokes a way of life predefined by the ancestors, a self-enclosed world rooted in the past. (Gaenszle2000Origins)

The social order, but also the physical and mental health of individuals, is ultimately related to the ancestors. This is also illustrated by rituals such as *saya pokma* (literal translation: ‘raising the head soul’), which is known in Yakkha and in other Kiranti groups. It is undertaken to re-unite individuals, whose well-being is endangered, with the primaeval ancestral order. In her anthropological-psychological study

on Lohorung culture, for example, **Hardman2000_Other** notes that the main frame of reference in that culture is one in which

... the ‘natural’ ancestral order [...], as recorded in their myths, has to be constantly recreated and the unity between nature, the superhuman, and the human reaffirmed. Failure to do this would lead to depression, increased sickness, possibly death, and ensuing chaos. In contrast, repetition of ancestral worlds and adherence to ancestral order acts like recharging the cosmos. It brings vitality. (**Hardman2000_Other**)

For Yakkha people, the ancestral order is equally important. A key feature of this order is the division of the Yakkha society into clans (called *chon*), which is critical not only in marriage restrictions but also in the ritual sphere. **Russell1992_Yakha** notes the following clan names in Yakkha (square brackets indicate his transcriptions where deviating from the orthography used in this work): *Linkha*, *Chala* [challa], *Koyonwa* [koyonja], *Khamyahan* [kammien], *Limbukhim* [limbuhim], *Honhonba*, *Kongren*, *Chongren*, *Ma?kruk*, *Ya?yukhim*, *Ta?yum*, *Pubangu*, *Oktuban*, *Somyen*, *Khayakhim* [khayakim], *Henwa*, *Ilumban*, *Tiksalan*, *Thampara*, *Ibahan*, *Yuwanan*. I further recorded the clan names *Elaba*, *Hangsewa* and *Huture* in mythical narratives.

Apart from these clans, there is another concept called *sametlin* ‘spiritual clan’. There are different *sametlins* for the women and for the men of each clan. Women of one clan may, however, share their spiritual clan with men of another clan. In contrast to clan (*chon*) affinity, the *sametlin* of a woman does not change after marriage. The *sametlins* outside one’s family are not widely known, in contrast to a person’s *chon*. They are only significant in dealing with spirits (*cyan*) (**Russell1992_Yakha**).

Personal names (mostly Indo-Aryan nowadays), are not widely used. It is rather common to address a person by the respective kinship term, or by a teknonym ‘X’s father’ or ‘X’s mother’.

The ritual specialists responsible for holding the ancestral rituals are called *Manganba* in Yakkha. They undertake rituals for each household on occasions like births, marriages and deaths. The task of the *Manganbas* is to maintain the ancestral order and good relations with

the spirit world (there are several potentially dangerous spirits such as *soghek* - ghosts of people who have died an unnatural death). Other religious practitioners are *chamwas*, *bijuwas* (a Rai term), *phedanbas* (a Limbu term), *dhamis* (a Nepali term), but I cannot offer a typology of their features and their tasks. Jointly celebrated festivals (above the clan level or even above the village level) are *casowa* (Nepali: *udhauli*) in late autumn and *yuchyan* (Nepali *ubhauli*) in spring (Kongren2007Indigenous).²⁰

On these occasions and also on marriages, people gather in a circle and dance a complicated choreography slowly to the sound of huge drums beaten by some men in the circle (*keilakma* ‘dancing the drum dance’).

The Yakkha society is patrilineal and patrilocal. With regard to marriages, it is important to note that there are two distinct steps taken to incorporate the bride into the clan of her husband. The actual marriage is only the first step, called *mandata*. The second step is called *bagdata*, and is undertaken years, sometimes decades, after the marriage. In the *bagdata*, the husband has to ask his in-laws for their daughter again, and only after this ritual does she become a member of his clan. If the wife dies before the *bagdata* has been asked for, her natal home will undertake the death rites for her.

2.3 Genealogical affiliation

Yakkha is a Sino-Tibetan language, belonging to the Greater Eastern branch of Kiranti, a group of Tibeto-Burman languages spoken in Eastern Nepal.²¹ Beyond this basic classification, the question of how to group Kiranti languages with other Sino-Tibetan languages is still a controversial issue, as in general, subgrouping in the large and incredibly diverse Sino-Tibetan language family has proven to be rather difficult (see e.g. Hyslop2011_Kurtop for an overview of the different models of reconstruction that have been proposed).

²⁰ In his ethnological study, Russell1992_Yakha does not mention these festivals, so their names as well as celebrating them this way might be a relatively new development.

²¹ Although not undisputed, it is assumed by many scholars that Sino-Tibetan can be divided into a Sinitic and a Tibeto-Burman branch, the latter containing at least 300 languages (Bradley1997_Tibeto-Burman; Matisoff2003Handbook).

Shafer1974_Introduction identified Kiranti (which he called East Himalayish) as a sub-branch of Bodic, together with three further branches: Bodish (including Tibetan and Tamangic languages), West Himalayish and West Central Himalayish (including Magar and Chepang). Similarly, **Bradley1997_Tibeto-Burman** suggested that the Kiranti languages, together with Magaric and Newaric languages, form the sub-branch Himalayish.

A different view is entertained by **LaPolla2003_Overview** who includes Kiranti in a group he calls Rung (including, most importantly, the rGyalrongic languages, the Dulong languages, the Kiranti languages, Kham, and the West Himalayan languages Kinauri and Almora), on the basis of shared person marking morphology and a reflexive/middle suffix **-si* (except for rGyalrong). What makes any classification even harder is that not even the question of the antiquity of person marking in Tibeto-Burman has been settled yet (see e.g. **DeLancey2010_Towards**; **Jacques2012_Agreement** who argue that such a system can be reconstructed, and **LaPolla2001_Role**; **LaPolla2012_Comments** who argues that agreement marking systems in Tibeto-Burman languages are independent innovations).

Kiranti languages can be grouped into a Western and a Central-Eastern branch (with a Central and a Greater Eastern sub-branch), as shown in Figure ?? (**Bickeletal_Firstperson**). Central-Eastern Kiranti is characterized by a loss of voiced initials by merging voiceless and voiced initials (**Michailovsky1994Manner**). Voiced stops with phonemic value rarely occur, though voiced allophones are possible, as a result of post-nasal and intervocalic voicing, for instance in Yakkha and in Athpare (**Ebert2003Kiranti**).

Yakkha undoubtedly belongs to the Greater Eastern branch. A distinctive feature of Greater Eastern Kiranti languages is the change of pre-glottalized stops into aspirated stops (or zero, in the case of */*ʔt/*, see further below): */*ʔts/* > */tsʰ/*, */*ʔp/* > */ph/*, */*ʔk/* > */kh/* (see Table ?? for comparative data).²² The Greater Eastern branch splits into Upper Arun (Lohorung, Yamphu and Mewahang) and Eastern Kiranti, to

²² The table is based on data from **Driem1993A-grammar**; **Driem1987A-grammar**; **Bickeletal2009Puma**; **Kongren2007Yakkha** and my own data.

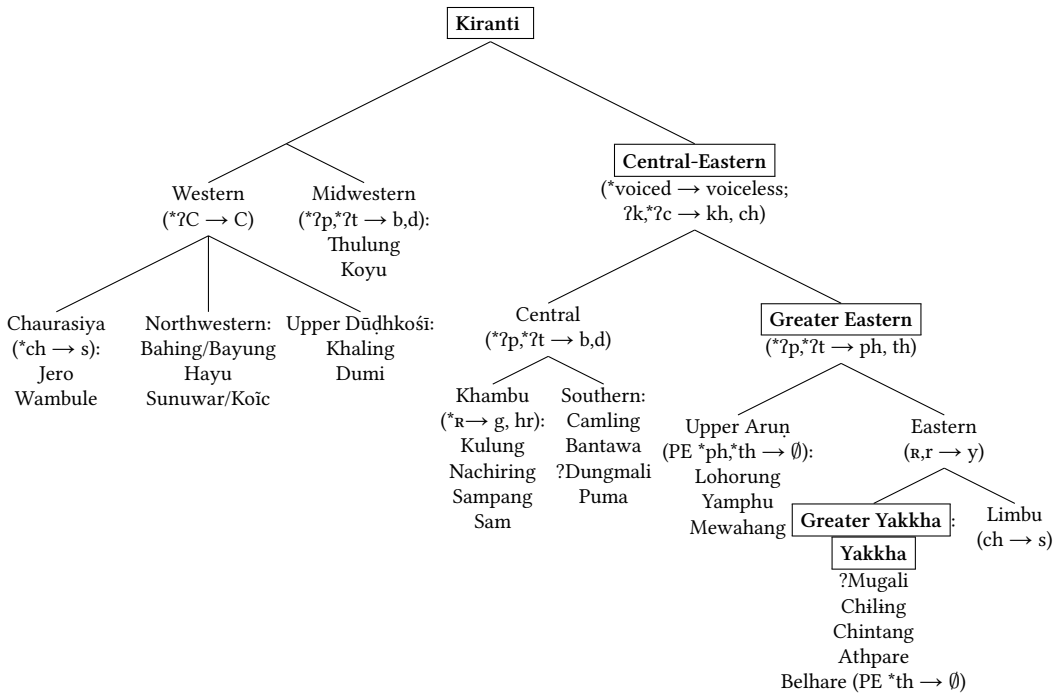


Figure 2.9: Kiranti subgrouping, according to **Bickel2008Seminar**

which Yakkha belongs. Eastern Kiranti is characterized by the change of initial **/r/* and **/R/* into */y/* (**Driem1990The-fall**).

Within Eastern Kiranti there are two groups, which are the various Limbu dialects on the one hand and the so-called Greater Yakkha group, with Chintang, Belhare, Athpare, Chiling and Yakkha, on the other hand. Some languages of the Greater Yakkha branch are characterized by the loss of the aspirated coronal stop, compare e.g. Limbu *thuŋ* ‘drink’ with Yakkha (and Belhare) *uŋ* (**Bickel1997Dictionary**). Furthermore, the aspirated affricate */tsʰ/* (see above) has undergone a further change to */s/* in Limbu, compare e.g. Limbu *sarumma* with Yakkha *chalumma* ‘second-born girl’ (for further examples see Table ??).

Rhotic consonants, although they do not occur word-initially in Yakkha, are found word-internally. The claim made by **Driem1990The-fall** that

Table 2.1: Examples of Kiranti sound correspondences

PROTO-KIRANTI	DUMI (WESTERN)	PUMA (CENTRAL)	YAKKHA (EASTERN)	LIMBU (EASTERN)	GLOSS
*/d/	de:n	ten	ten	ten	‘village’
*/j/	ju	ca	ca	ca	‘eat’
*/b/	bhiʔi	pooŋ	pik	pit	‘cow’
*/r/	rep	rep	ep	yep	‘stand’
*/r/	roʔdi	roduŋ	yakthuŋ	yak	‘Kiranti’ (autonym)
*/R/	rim	rum	yum	yum	‘salt’
*/ch/		chapd-	chep	sap	‘write’
*/ʔc/		chakd	chekt	sak	‘close’
*/ʔp/	puŋ	buŋ	phuŋ	phuŋ	‘flower’
*/ʔt/	tiŋ	duŋ	uŋ	thuŋ	‘drink’
*/ʔt/		dok	ak	thak	‘loom’

[l] and [r] have a complementary distribution and are thus allophones in Eastern Kiranti cannot be confirmed for Yakkha: both sounds occur in similar environments word-internally (cf. Table ?? on page ??), and no environment was found in which [l] and [r] show allophonic variation in Yakkha (see also §??). Thus, although finding “proper” minimal pairs for /l/ and /r/ is difficult, /r/ is a phoneme in Yakkha.

Based on a comparison of the verbal person marking paradigm, the closest relative of Yakkha within the Greater Yakkha branch is Belhare. The two languages exclusively share the following markers: a suffix *-ka* ~ *-ga* indexing second person arguments (any role), and an underspecified nasal prefix *N-* indexing third person plural S and A (3>2.SG and 3pl>3) in Yakkha, and 3nsg.S and 3>2 in Belhare (Bickel2003Belhare).

2.4 Sociolinguistic context

2.4.1 Dialectal variation

The variety documented here is spoken in Tumok village and surrounding areas, e.g. in Salle. No detailed dialectal study has been undertaken for Yakkha yet. Based on phonological differences and distinct exclama-

tive words, I tentatively propose three further dialects: one spoken in the area around Ankhinbhuin (Angbura, Hombong, Phakling), one spoken in the area around Dandagaun and one spoken towards the north, in Kingring and Kharang villages.

Table ?? illustrates dialectal differences. The Kharang dialect is different from the other dialects, for instance, in having a second person possessive marker *i-* instead of the unspecified nasal prefix that is found elsewhere, and in having a clause-final exclamative particle *ikhok*. Apart from this, I do not have data on this dialect.

Yakkha has a general phonological rule of voicing consonants in post-nasal and intervocalic position. The rule has different domains of application across the dialects: in Tumok and in Dandagaun it does not apply to aspirated consonants, while in Ankhinbhuin it applies to both aspirated and unaspirated consonants. Furthermore, I noticed that in Dandagaun, /o/ gets raised to /u/, at least in some lexemes. In the Tumok dialect, the person marker for first person acting on second is *-nen*, while in the Ankhinbhuin dialect it is *-nan* (cf. also the data from Omruwa (Angbura) in **Driem1994The-Yakkha**). In Dandagaun and Ankhinbhuin honorific imperative forms calqued upon Nepali are used, while in this is not common in Tumok. I have no data on the varieties spoken in the south of the Dhankuta district, in the village of Namsaling in Ilam district and in India.

In Marek VDC in Dhankuta (Marek, Ghorlikharka, Jitpur, Andrung, Magwa, Saldang villages), a variety is spoken that is so different from the other Yakkha varieties (as perceived by the speakers of Yakkha, too) that it cannot be called a dialect of Yakkha any more. The linguistic differences notwithstanding, the speakers are perceived as belonging to the Yakkha group on ethnic grounds. The language is called Lumba-Yakkha in the Ethnologue (ISO 639-3: *luu*).²³ I have not heard this designation in Tumok, the language was usually referred to as *māreki bhāsā* (Nepali; ‘the language from Marek’). The Marek variety has, for instance, undergone the sound change from /ch/ to /s/ that is also known from Limbu. Crucially, the pronominal paradigm and the verbal inflection are different from Yakkha, for instance the sec-

²³ **Levisetal2015_Ethnologue** <http://www.ethnologue.com>, accessed on Dec. 20 2013

Table 2.2: Dialectal variation within the Yakkha region

TUMOK	DANDAGAUN	ANKHINBHUIIN	KHARANG	GLOSS
<i>mma</i>	<i>mma</i>	<i>mma</i>	<i>ima</i>	‘your mother’
<i>nninga</i>	<i>nninga</i>	<i>nninga</i>	<i>ininga</i>	‘your’
<i>i ~ ina ~ iha</i>	<i>i ~ ina ~ iha</i>	<i>i ~ ina ~ iha</i>	<i>iruk</i>	‘what’
<i>cokma</i>	<i>cukma</i>	<i>cokma</i>	(no data)	‘do, make’
<i>ŋkhya(ci)</i>	<i>ŋkhya(ci)</i>	<i>ŋghya(ci)</i>	(no data)	‘they went’
<i>mphopma</i>	<i>mphopma</i>	<i>mbhopma</i>	(no data)	‘your shawl’
<i>piʔnenna</i>	<i>piʔnenna</i>	<i>piʔnanna</i>	(no data)	‘I gave it to you’
<i>coeba</i>	<i>cama leŋniba</i>	<i>cama leŋniba</i>	(no data)	‘Please eat.’
<i>haʔlo</i>	(no data)	<i>khoʔo ~ kho</i>	<i>ikhok</i>	(exclamative particle)
<i>=pa</i>	<i>=pa</i>	<i>=aŋ</i>	(no data)	(emphatic particle)

ond person prefix *a-* (otherwise known from Athpare and Chintang, see Ebert1997A-grammar; Bickeletal2007Free) instead of the Yakkha suffix *-ka*. Table ?? provides some exemplary data collected in 2010 with a speaker from Marek, but no detailed study has been undertaken yet.

2.4.2 Endangerment

According to the Nepali census of 2001 (CBS2001Report) and the UNESCO Working Paper No. 7 (Toba2005Unesco) there are 14,648 native speakers out of about 17,000 ethnic Yakkha. The number of native speakers makes up 0.06 per cent of the Nepalese population. This census, however, seems highly optimistic to me, since Yakkha is barely spoken in half of the Yakkha area, and even where it is spoken the youngest generation (below 20 years of age) does not commonly use Yakkha, even though they might have a passive command of the language. Specific domains such as ritual, mythological and traditional ecological knowledge are known only by a few (usually) elderly people. I did not find any monolingual Yakkha speakers; all speakers are at least bilingual with Nepali,²⁴ and proficiency in other neighbouring

²⁴ The official language in Nepal is the Indo-Aryan language Nepali. It is used in official communication, in commerce and in education. Since the constitution of

Table 2.3: Marek data in comparison with Tumok data

MAREK	TUMOK	GLOSS
<i>hoʔli</i>	<i>imin</i>	‘how’
<i>pisa</i>	<i>picha</i>	‘child’
<i>seŋma</i>	<i>chimma</i>	‘to ask’
<i>hima</i>	<i>i ~ ina ~ iha</i>	‘what’
<i>mahuma</i>	<i>maghyam</i>	‘old woman’
<i>pahuba</i>	<i>paghyam</i>	‘old man’
<i>nhandi</i>	<i>khaʔla</i>	‘like this’
<i>aŋga</i>	<i>ka</i>	‘I’
<i>aŋciŋ</i>	<i>kanciŋ</i>	‘we’ (du)
<i>aŋniŋ</i>	<i>kaniŋ</i>	‘we’ (pl)
<i>ŋkhan</i>	<i>nda</i>	‘you’ (sg)
<i>habe</i>	<i>heʔne</i>	‘where’
<i>hannalam</i>	<i>heʔnhaŋ</i>	‘where from’
<i>akhaʔneʔna</i>	<i>khemekana</i>	‘you go’
<i>=na</i>	<i>=na</i>	(nominalizer)
<i>-ma</i>	<i>-ma</i>	(infinitive marker)

languages such as Bantawa and Limbu is also common.

One reason why Yakkha speakers shift to Nepali is the already mentioned migration outward for economic and educational reasons, but there are also whole villages inside the homeland that have switched to Nepali. For instance, while Yakkha is still vividly spoken in Tumok, it is difficult to find speakers in the neighbouring villages Mamling, Waleng and in the old garrison town Chainpur (a former center for trade in the region). Most speakers of Yakkha are found in the south of the Yakkha region.

A well-known reason for this development is the low prestige that indigenous languages have long had compared to Nepali. Since the creation of the Nepali nation state in the eighteenth century under the rule of King Pr̥thvī Nārāyaṇ Śāha (1723–1775), Nepali has been propagated as the national language, and people have not been encouraged to speak other languages. Much damage was also done under the Panchayat System (1961–1990), where the use of indigenous languages was actively discouraged under the policy of “One Nation, One Language” (Toba2005Unesco).

Language shift is complex and can be understood on both macro and interactional levels of analysis. In the Yakkha region, education beyond the primary school level is available exclusively in Nepali or English.²⁵ At the primary level, Yakkha language classes have been introduced in a number of schools recently (starting in 2009), but Yakkha is not the medium of instruction in other subjects. Yakkha people are not represented in the government beyond village level (CBS2001Report). Even in the villages, official posts in education and administration are still overwhelmingly held by people from non-indigenous backgrounds,

1990 which followed the first *Jana Andolan* (People’s uprising), all languages spoken as mother tongues in Nepal are considered national languages, which grants the speakers the right to be educated in their mother tongue (Turin2007_Diversity). This is, however, hard to implement, given that more than 100 languages are spoken in the country.

²⁵ This is also reflected in the negative correlation between the educational level and the number of Yakkha students. According to the 2001 census, the number of Yakkha students beyond the primary level was 6915, the number of those who have passed S.L.C. was 878 and the number of those with a degree was 89 in 2001 (CBS2001Report).

simply because there are not enough Yakkha people who could work in these positions. This social and economic bias exerts additional pressure on the speakers of Yakkha, and these dynamics are one of the reasons why Yakkha-speaking parents use Nepali with their kids.

Another factor destabilizing the language situation are marriages with people outside one's own linguistic community, for instance Yakkha-Limbu marriages. Generally, bilingual or multilingual families are of course not problematic, to the contrary, multilingualism is rather the norm world-wide (see [Turin2007_Diversity](#)). But with the additional pressure that comes from Nepali, children from multilingual families nowadays often grow up with Nepali as the only language they speak fluently.

These developments cannot simply be related to a lack of interest in the parents to pass on their language. According to my own observations, the tendency not to speak Yakkha is even present in the children of those people who have a high ethnic awareness and who are engaged in a number of activities towards preserving their language and culture. The tension between preserving one's ethnic and linguistic heritage and participating in modern society is well-known in theoretical approaches to language loss, but it is nevertheless hard to resolve for the affected individuals.

In the past decades, with multi-party democracy having started in 1990, and even more so in the post-monarchy era that has followed the civil war (1996–2006) and the second *Jana Andolan* (People's Uprising) in 2006, activities aiming at the preservation of the indigenous languages and cultures have increased. In the case of Yakkha, for instance, the Kirant Yakkha Chumma (Indigenous Peoples Yakkha Organization) have implemented Yakkha lessons in a few primary schools in the Yakkha region. School books have been completed up to class five already, with the plan to reach class eight. Dictionaries, literary works and even songs and music videos have been created lately by members of the community who feel the urge to do something before it is too late (cf. §??). The long-term impact of this welcome development remains to be seen. To properly assess the endangerment of a language, an in-depth study in its own right would be necessary. The loss of Yakkha in a wide geographic area and in the youngest generation are, however,

very clear and alarming signs.

3 Phonology

This chapter deals with the phoneme inventory and phonological and morphophonological rules and processes that are relevant in Yakkha. The orthography used here is explained in §???. The examples in this chapter, unlike in the other chapters, have two lines representing the Yakkha data: the upper line shows the data after the application of all phonological and morphophonological rules, and the lower line shows the underlying phonemic material with morpheme breaks. The orthography is used in both of these representations, and IPA is only used when it is necessary in the explanations in prose. Section ?? presents the phoneme inventory of Yakkha, §??? treats the syllable structure and §??? discusses the treatment of loan words, as they nicely illustrate the phonological features of Yakkha. Section ?? lays out the conditions by which stress is assigned. The abundant morphophonological processes and their connections to syllable structure, stress and to diachronic processes are the concern of §??.

3.1 Phoneme inventory and allophonic rules

3.1.1 Vowel phonemes

Yakkha has only five basic vowels; it has two close vowels, the front /i/ and the back /u/, two close-mid vowels, the front /e/ and the back /o/, and an open vowel /a/. In contrast to other Kiranti languages, there are no central vowels like /ɨ/, /ʌ/ or /ə/. A chart with the vowel inventory is provided in Figure ??. In addition to these vowels, a front vowel [ɛ] may occur, but only as the contracted form of the diphthong /ai/ (see §??), not in any other environments. Minimal pairs are provided in Table ??. Tone, length or nasal articulation do not constitute phonemic contrasts in Yakkha.

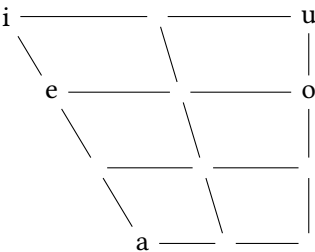


Figure 3.1: Yakkha vowel phonemes

Table 3.1: Minimal pairs for vowel phonemes

PHONEMES		EXAMPLES		
/e/ vs. /i/	<i>nema</i>	‘lay, sow seed’	<i>nima</i>	‘know, see’
	<i>tema</i>	‘lean on an angle’	<i>tima</i>	‘put down, invest’
/e/ vs. /a/	<i>tema</i>	‘lean on an angle’	<i>tama</i>	‘come’
	<i>yepma</i>	‘stand’	<i>yapma</i>	‘be rough, uncomfortable’
/o/ vs. /u/	<i>okma</i>	‘shriek’	<i>ukma</i>	‘bring down’
	<i>hoʔma</i>	‘prick, pierce’	<i>huʔma</i>	‘push, stuff’
/o/ vs. /a/	<i>thokma</i>	‘spit’	<i>thakma</i>	‘weigh, hand up, send up’
	<i>hoʔma</i>	‘prick, pierce’	<i>haʔma</i>	‘scrape off/out’
/u/ vs. /i/	<i>ukma</i>	‘bring down’	<i>ikma</i>	‘chase’
	<i>umma</i>	‘pull’	<i>imma</i>	‘sleep’

3.1.2 Diphthongs

Given that adjacent vowels are generally avoided in Yakkha, it does not come as a surprise that diphthongs, i.e., adjacent vowels in the same syllable, are rare. The four diphthongs /ai/, /ui/, /oi/ and /au/ were found, occurring marginally, as in *ηhai* (a dish made from fish stomach), *hoi!* ‘enough!’, *uimalaη* ‘steeply downhill’, (*h*)*au* (a sentence-final exclamative particle) and *ambau!* (an exclamative expression indicating that the speaker is impressed by huge or dangerous things). Some speakers pronounce underlying sequences like /ηond-si?-ma/ and /thend-si?-ma/ with nasalized diphthongs, [ηoĩsi?ma] and [theĩsi?ma], respectively (instead of the more common pronunciations [ηonsi?ma] and [thensi?ma]).¹

Most diphthongs have their origin in a multimorphemic or in a multisyllabic environment. The adverb *uimalaη*, for instance, like many other spatial adverbs in Yakkha, is composed of a stem (diachronically most probably a noun) and the possessive prefix *u-*. The marginal nature of the diphthongs is confirmed also by the fact that they are found more in names and discourse particles than in lexemes with semantic content, and never in verbal roots. Occasionally, diphthongs are just one stage in a larger process of contraction. Consider the inflected form *wai?na* ‘(he/she/it) exists’, which is also found as [wε?na]. Its nonpast semantics and synchronically available contracted forms of verbs suggest that [wai?na] used to be *[wa.me.na] historically. Table ?? provides an exhaustive list of lexemes containing diphthongs from the more than 2400 lexemes in the current lexical database.

3.1.3 Consonant phonemes

Table ?? below shows the central and the marginal consonant phonemes of Yakkha. The phones that are not in parentheses clearly have phone-

¹ The nasalization is exceptional here. Usually, the prosody of Yakkha supports the opposite process, namely the change of nasal vowels to nasal consonants, e.g. in borrowed Nepali lexemes (see §??). Nasals may, however, regularly change to nasalization of the preceding vowel in intervocalic environment and before glides and liquids, as in *mě.u.le* ‘without entering’ (/meN-us-le/) and *mě.yok.le* ‘without searching’ (/meN-yok-le/), see §??.

Table 3.2: Lexemes containing diphthongs

/au/	/oi/	/ui/	/ai/
(h)au	coilikha	uimalaŋ	ŋhai
(EXCLA)	(a village)	‘steeply downhill’	‘fish stomach’
ambau!	hoi!	phakkui	Yaiten
‘holy smoke!’	‘enough!’	‘pig droppings’	(a village)
		waghui	lai
		‘chicken droppings’	(EXCLA)

mic status; they occur in basic, uninflected stems. The phonemic status of the phones in parentheses is not always straightforward (discussed below). Where my orthography deviates from IPA, this is indicated by angle brackets.

Table 3.3: Yakkha consonant phonemes

	BILABIAL	ALVEOLAR	RETROFLEX	PALATAL	VELAR	GLOTTAL
PLOSIVES	p	t	(t)		k	ʔ
ASP.	ph	th	(th)		kh	
VOICED	(b)	(d)	(d)		(g)	
VOICED-ASP.	(bh)	(dh)	(d̪h)		(gh)	
AFFRICATES		ts <c>				
ASP.		ts ^h <ch>				
VOICED		(dz) <j>				
VOICED-ASP.		(dz ^h) <jh>				
FRICATIVES		s				h
NASALS	m	n			ŋ	
NAS. ASP.	(mh)	(nh)			(ŋh)	
RHOTICS		r				
LATERALS		l				
GLIDES	w			y		
GLIDES ASP.	wh					

3.1.3.1 The main phonemic distinctions in the consonants

Yakkha distinguishes six places of articulation: bilabial, alveolar, retroflex (or post-alveolar), palatal, velar and glottal. Retroflex plosives most probably made their way into Yakkha via Nepali loan words. They are found only in a few Yakkha lexemes, and no proper minimal pairs could be established. The retroflex series lacks a nasal, too. However, in the few words that are found with retroflex stops, they are robust, and pronouncing these words with an alveolar stop is not an option.

Yakkha fits well into the Eastern branch of Kiranti, for instance in the loss of phonemic contrast between voiced and unvoiced plosives. Generally, plosives, unless they are found in an environment that triggers voicing, are pronounced voiceless. As always, a few exceptions occur that cannot be explained by some rule. The exact parameters of the voicing rule are laid out in §???. A robust phonemic contrast is that between aspirated and unaspirated consonants, found in the plosives (except for the glottal stop), the affricate and the bilabial glide /w/. Aspiration of a stem-initial consonant, historically a morphological means to increase the transitivity in Tibeto-Burman (Michailovsky1994Manner; Jacques2012_Internal; Hill2014_Note), has become purely phonemic in Yakkha. The aspirated plosives have a strong fricative component. Three nasals are distinguished by their place of articulation: bilabial /m/, alveolar /n/ and velar /ŋ/. Yakkha has two fricatives /s/ and /h/, and two liquids, /l/ and /r/. The rhotic does not occur word-initially. In this position, */r/ has changed to the palatal glide /y/ (see also Table ?? in Chapter ?? and the references therein).² The distribution of the rhotic consonant deserves a closer look, also in the perspective of other Eastern Kiranti languages (see §??? below). Table ?? provides minimal pairs for the basic consonant phonemes, mostly from verbal stems or citation forms.

² Furthermore, /y/ may be omitted before /e/ in some lexemes, but this process is subject to considerable individual variation.

Table 3.4: Minimal pairs for consonants

PHONEMES	EXAMPLES			
/k/ vs. /kh/	<i>keʔma</i>	‘come up’	<i>kheʔma</i>	‘go’
	<i>kapma</i>	‘carry along, have’	<i>khapma</i>	‘thatch, cover’
/p/ vs. /ph/	<i>pakna</i>	‘young guy’	<i>phak</i>	‘pig’
	<i>pekma</i>	‘fold’	<i>phekma</i>	‘slap, sweep’
/t/ vs. /th/	<i>tumma</i>	‘understand’	<i>thumma</i>	‘tie’
	<i>tokma</i>	‘get’	<i>thokma</i>	‘hit with horns’
/c/ vs. /ch/	<i>cikma</i>	‘age, ripen’	<i>chikma</i>	‘measure, pluck’
	<i>cimma</i>	‘teach’	<i>chimma</i>	‘ask’
/k/ vs. /ʔ/	<i>okma</i>	‘shriek’	<i>oʔma</i>	‘be visible’
/t/ vs. /ʔ/	<i>-met</i>	(CAUS)	<i>-meʔ</i>	(NPST)
/p/ vs. /ʔ/	<i>opma</i>	‘consume slowly’	<i>oʔma</i>	‘be visible’
/t/ vs. /r/	<i>ot</i>	‘be visible’ (stem)	<i>or</i>	‘peel off’
/l/ vs. /r/	<i>khelek</i>	‘ant’	<i>kherek</i>	‘hither’
/y/ vs. /w/	<i>yapma</i>	‘be uncomfortable’	<i>wapma</i>	‘paw, scrabble’
	<i>yamma</i>	‘disturb’	<i>wamma</i>	‘attack, pounce’
/y/ vs. /l/	<i>yapma</i>	‘be uncomfortable’	<i>lapma</i>	‘accuse, blame’
/w/ vs. /wh/	<i>wapma</i>	‘paw, scrabble’	<i>whapma</i>	‘wash clothes’
	<i>waŋma</i>	‘curve, bend’	<i>whaŋma</i>	‘boil’
/s/ vs. /h/	<i>sima</i>	‘die’	<i>hima</i>	‘spread’
	<i>somma</i>	‘stroke gently’	<i>homma</i>	‘fit into’
/k/ vs. /ŋ/	<i>pekma</i>	‘break’	<i>peŋma</i>	‘peel’
	<i>okma</i>	‘shriek’	<i>oŋma</i>	‘attack’
/ŋ/ vs. /m/	<i>toŋma</i>	‘agree’	<i>tomma</i>	‘place vertically’
	<i>tuŋma</i>	‘pour’	<i>tumma</i>	‘understand’
/ŋ/ vs. /n/	<i>=ŋa</i>	(ERG)	<i>=na</i>	(NMLZ.SG)
/m/ vs. /n/	<i>makma</i>	‘burn’	<i>nakma</i>	‘beg, ask’
	<i>miʔma</i>	‘think, remember’	<i>niʔma</i>	‘count, consider’

3.1.3.2 Marginal consonant phonemes

Several of the phonemes occur only marginally, either in Nepali loan words, or in just a handful of Yakkha lexemes. This basically applies to the already mentioned retroflex plosives and to all voiced obstruents, as voicing is generally not distinctive in Yakkha.³ Some sounds are never found in uninflected lexemes, so that they only emerge as the result of some morphophonological processes that are triggered by the concatenation of morphemes with certain phonological features. Voiced-aspirated consonants and the aspirated nasals [m^h], [n^h] and [ŋ^h] belong to this group. The marginal sounds are included in parentheses in Table ???. The reader is referred to §??? for the details of the various morphophonological processes that lead to marginal phonemes.

3.1.3.3 The phonemic status of the glottal stop

The glottal stop is contrastive, as several minimal pairs in Table ??? show. The glottal stop surfaces only before nasals and laterals, so that one can find minimal pairs like *meŋ.khuʔ.le* ‘without carrying’ and *meŋ.khu.le* ‘without stealing’, or *men.daʔ.le* ‘without bringing’ and *men.da.le* ‘without coming’. However, the glottal stop can also be the result of a phonological operation. Unaspirated stops, especially /t/, tend to get neutralized to [ʔ] syllable-finally (aspirated stops do not occur in this position). The glottal stop is also prothesized to vowel-initial words to maximize the onset. In certain grammatical markers, the glottal stop may also be epenthesized at the end of the syllable when it is followed by nasal consonants or glides (see (1)). This may happen only when the syllable is stressed, but the conditions for this epenthesis are not fully understood yet. It never occurs at the end of a word (if the word is defined by the domain to which stress is assigned).

- (1) a. *tu.mok.peʔ.na* *ma.mu*
 /tumok=pe=na mamu/
 Tumok=LOC=NMLZ.SG girl

³ There are quasi minimal pairs such as *apaŋ* ‘my house’ and *abaŋ* ‘I came’, but both are inflected words and the difference is that *a-* in *apaŋ* is a prefix, and the rule that is responsible for the voicing of plosives excludes prefixes.

- ‘the girl from Tumok’
b. *men* *baʔ.lo!*
 /men pa=lo/
COP.NEG EMPH=EXCLA
‘Of course not!’

The glottal stop is less consonant-like than the other plosives. In certain environments, stems that end in a glottal stop may behave identically to stems consisting of open syllables (CV). For instance, if the stem vowel /e/ or /i/ (of a CV stem or a CV? stem) is followed by a vocalic suffix like *-a* (marking past or imperative), it changes into a glide [j] and becomes part of the onset (written <y>). This process is illustrated by the behavior of *kheʔma* ‘go’ and *piʔma* ‘give’, cf. Table ?? . If the stem vowel (of a CV stem or a CV? stem) is a back vowel, a glide [j] is inserted between stem and suffixes. If open or /ʔ/-final stems are followed by the suffix sequence *-a-u*, this sequence of suffixes is not overtly realized. Examples of these processes are provided in Table ?? , contrasted with the behavior of stems with open syllables and stems that end in /p/, /t/ or /k/. The first column shows the underlying stem, the second column provides the citation form and the gloss, the third column shows the behavior before /l/, by means of the forms of the negative converb. The fourth and the fifth column show the behavior before vowels, by means of intransitive 3.SG past forms (in *-a*),⁴ and transitive 3SG>3SG past forms (in *-a-u*).⁵

To wrap up, the intervocalic environment distinguishes /ʔ/-final stems from stems that end in /p/, /t/ or /k/, while the infinitive and the environment before /l/ distinguishes /ʔ/-final stems from open stems.

The glottal stop at the end of verbal stems can be reconstructed to */t/, in comparison with other Eastern Kiranti languages (cf. Section ?? on the structure of the verbal stems).

⁴ Or detransitivized, depending on the original valency of the stem.

⁵ The verb *cama* ‘eat’ is the only transitive verb that has an open stem in /a/. It is exceptional in having an ablaut. Open stems are rare, and not all of them are found among both transitive and intransitive verbs, so that some fields of the table cannot be filled.

Table 3.5: The glottal stop stem-finally, compared to vowels and other plosives

STEM	CITATION FORM	/_l (NEG.CVB)	/_a (3SG.PST)	/_a-u (3SG>3SG.PST)
/ʔ/-final stems				
/khuʔ/	<i>khuʔma</i> ‘carry’	<i>meŋ.khuʔ.le</i>	<i>khu.ya.na</i>	<i>khu.na</i>
/waʔ/	<i>waʔma</i> ‘wear, put on’	<i>mẽ.waʔ.le</i>	<i>wa.ya.na</i>	<i>wa.na</i>
/soʔ/	<i>soʔma</i> ‘look’	<i>men.soʔ.le</i>	<i>so.ya.na</i>	<i>so.na</i>
/kheʔ/	<i>kheʔma</i> ‘go’	<i>meŋ.kheʔ.le</i>	<i>khya.na</i>	-
/piʔ/	<i>piʔma</i> ‘give’	<i>mem.biʔ.le</i>	<i>pya.na</i>	<i>pi.na</i>
V-final stems				
/ca/	<i>cama</i> ‘eat’	<i>men.ja.le</i>	<i>ca.ya.na</i>	<i>co.na</i>
/a/	<i>ama</i> ‘descend’	<i>mẽ.a.le</i>	<i>a.ya.na</i>	-
/u/	<i>uma</i> ‘enter’	<i>mẽ.u.le</i>	<i>u.ya.na</i>	-
/si/	<i>sima</i> ‘die’	<i>men.si.le</i>	<i>sya.na</i>	-
/p/-, /t/-, /k/-final stems				
/lap/	<i>lapma</i> ‘seize, catch’	<i>mẽ.lap.le</i>	<i>la.ba.na</i>	<i>la.bu.na</i>
/yok/	<i>yokma</i> ‘search’	<i>mẽ.yok.le</i>	<i>yo.ga.na</i>	<i>yo.gu.na</i>
/phat/	<i>phaʔma</i> ‘help’	<i>mem.phat.le</i> ~ <i>mem.phaʔ.le</i>	<i>pha.ta.na</i>	<i>pha.tu.na</i>

3.1.3.4 The status of /r/ in Yakkha and in Eastern Kiranti perspective

The rhotic /r/ does not occur word-initially in genuine Yakkha lexemes, due to the typical Eastern Kiranti sound change from */r/ to /y/ in word-initial position (see §?? and Bickeletal_Firstperson). There are words like *lok* ‘anger’ and *yok* ‘place’, but no words starting with /r/.⁶ It can, however, occasionally be found in complex onsets, and syllable-initially in intervocalic environment. Table ?? shows that /r/ and /l/ can be found in very similar environments, even though proper minimal pairs are rare. In some instances, intervocalic /r/ can be traced back to historical */t/, as in the complex predicates in (2).

- (2) a. *pe.sa.ra.ya.na*
fly[3SG]-PST-V2.COME-PST=NMLZ.SG
‘It came flying to me.’
b. *phurj chik.tu.ra=na*
flower pluck-3.P-V2.BRING-PST-3.P=NMLZ.SG
‘She plucked and brought a flower.’

According to Driem1990The-fall [l] and [r] have a complementary distribution in Eastern Kiranti: [l] occurs word-initially and syllable-initially after stops, and [r] occurs between vowels and as the second component of complex onsets. The complementary distribution of [l] and [r] is a consequence of the general Eastern Kiranti sound change from */r/ to /y/ in word-initial position, which left /r/ only in word-internal position.⁷ It is plausible that [l] and [r], now partly in complementary distribution, were reanalyzed as allophones as a consequence of this sound change. Van Driem’s claim, however, could only partly be confirmed for Yakkha. In contrast to (Phedappe) Limbu (Driem1987A-grammar Schieringetal2010The-prosodic) and other languages from the Greater

⁶ There are a few exceptions, such as the ritual bipartite *raji-rajma* which means ‘wealth of land’. It might be a word that preserved an archaic phonological structure, or a loan (*rājya* means ‘kingdom’ in Nepali). Both options are possible and attested for the ritual register (the *Munthum*) of other Kiranti languages (Gaenszle2011_Binomials).

⁷ The sound change is evident from correspondences such as Yakkha and Limbu *yum* ‘salt’ and its non-Eastern cognates, e.g. *rum* in Puma (Central Kiranti, Bickeletal2009Puma) or *rim* in Dumi (Western Kiranti, Driem1993A-grammar).

Table 3.6: The phonemes /r/ and /l/ in similar environments

/r/	/l/
<i>khorek</i> ‘bowl’	<i>ulippa</i> ‘old’
<i>phi?waru</i> a kind of bird (Nep.: <i>koṭerā</i>)	<i>chalumma</i> ‘second-born daughter’
<i>tarokma</i> ‘start’	<i>caloŋ</i> ‘maize’
<i>kherek</i> ‘this side, hither’	<i>khelek</i> ‘ant’
<i>caram</i> ‘yard’	<i>sala</i> ‘talk’
<i>khiriri</i> ‘spinning round very fast’	<i>philili</i> ‘jittering’
<i>phimphruwa</i> ‘soap berry’ (Nep.: <i>riṭṭhā</i>)	<i>aphlum</i> ‘hearth stones’
<i>hobrek</i> ‘rotten’	<i>phoplek</i> ‘[pouring] at once’
<i>toprak</i> ‘leaf plate’	<i>khesapla</i> ‘a kind of fig tree’

Eastern branch of Kiranti such as Lohorung (**Driem1990The-fall**), the rhotic is not found as allophone of /l/ in intervocalic environment in Yakkha (compare the term for ‘second-born daughter’, *chalumma* (Yakkha) and *sarumma* (Limbu), Limbu data from **Driem1985_LimbuKin**). Allophonic variation between /l/ and /r/ was not found for any environment in Yakkha. For instance, the negative converb *me(n)...le* does not have an allomorph [me(n)...re] after CV-stems in Yakkha, in contrast to the same converb in Limbu. Furthermore, the question whether C + /r/ are syllabified as .Cr and C + /l/ as C.l could not be answered satisfactorily for Yakkha, based on auditory and phonological evidence. For instance, /r/ as well as /l/ may trigger voicing in a preceding consonant, without any obvious regularity (see Table ??). To sum up, there is more than sufficient evidence for the phonemic status of /r/ in Yakkha.⁸

⁸ The postulation of a phoneme /r/ has implications for a possible orthography for future Yakkha materials. One of the current local orthographies, used e.g. in **Kongren2007Yakkha** and in several school books (**Jimi2009Engka-Yakkha**), conflated /r/ and /l/ under the grapheme <>, the Devanagari letter for <l>. This turned out to be very impractical for the readers. It is not only too much abstracted away from the actual pronunciation, but also not justified by the phonological facts. It is my recommendation to change this in future publications, i.e. to write <> (r) when a sound is pronounced as a rhotic and <> (l) when a sound is pronounced as a lateral.

It is possibly a rather new development that the rhotic may also appear in syllable-final position. As shown in (3), it may occur at the end of verbal stems that historically used to have a stem-final /t/-augment (cf. §??). This syllabification is only licensed when the following syllable starts in /w/. When the stem is followed by vowel material, /r/ will be syllabified as onset. Another process leading to syllable-final rhotics is metathesis. It is found in free allophonic variation, as in *tepruki* ~ *tepurki* ‘flea’ or *makhruna* ~ *makhurna* ‘black’.

- (3) a. *thur-wa-ŋ=na*
 sew-NPST[3.P]-1SG.A=NMLZ.SG
 ‘I will sew it.’
 b. *nir-wa-ŋ-ci-ŋ=ha*
 count-NPST-1SG.A-3NSG.P-1SG.A=NMLZ.SG
 ‘I will count them.’

3.1.3.5 Aspirated voiced consonants

Aspirated voiced plosives can result from the voicing rule (cf. §??), or from sequences of morphemes with consonants followed by /h/, as in (4a). In this way, aspirated consonants can be created that are not found in simple lexemes; they always involve a morpheme boundary, at least diachronically.⁹ Another process leading to aspirated voiced consonants is vowel elision. If there is an underlying multimorphemic sequence of the shape /C-V-h-V/, the first vowel gets elided and /h/ surfaces as aspiration of the first consonant (see (4b)).

- (4) a. *khe.i.ŋha*
 /kheʔ-i-ŋ=ha/
 go[PST]-1PL-EXCL=NMLZ.NSG
 ‘We went.’
 b. *ca.mha.ci*
 /ca-ma=ha=ci/
 eat-INF[DEONT]=NMLZ.NSG=NSG
 ‘They have to be eaten.’

⁹ An exception is the word *ŋhai* ‘fish stomach (dish)’, for which no transparent multimorphemic etymology is available.

The environment that is required for the vowel elision is also provided by other forms of the verbal inflectional paradigm. In (5), the underlying sequence /-ka=ha/ ([-gaha] due to intervocalic voicing) licenses the elision of the preceding vowel, which results in the realization of /h/ as aspiration of [g].

- (5) a. *tun.di.wa.gha*
 /tund-i-wa-ka=ha/
 understand[3A]-2.P-NPST-2=NMLZ.NSG
 ‘He/she/they understand(s) you.’
- b. *tum.me.cu.ci.gha*
 /tund-me?-ci-u-ci-ka=ha/
 understand-NPST-DU.A-3.P-3NSG.P-2=NMLZ.NSG
 ‘You (dual) understand them.’

3.2 Syllable structure

This section describes the parameters for the possible syllable in Yakkha. The structure of the syllable is maximally CCVC, i.e. VC, CV, CCV and CVC are possible as well. If a word-initial syllable starts in a vowel, a glottal stop is prothesized to yield a minimal onset. Syllables with CVV structure occur only in the form of diphthongs (see §?? above). They are exceedingly rare, and they can generally be traced back to bi-syllabic or bimorphemic contexts. Syllables containing diphthongs are always open.

In a simple onset, any consonant can occur, with the exception of /r/, which got replaced by /y/ diachronically in Eastern Kiranti. Among the complex onsets, two sets have to be distinguished. The first set has the general shape CL, where L stands for liquids and glides. In this type of syllable, the first consonant can be a plosive, a fricative, an affricate or a nasal, while the second consonant can only be a liquid (/l/ or /r/) or a glide (/y/ or /w/). The onsets containing /y/ or /w/ result from contracted CVCV sequences diachronically. Some alternations between a monosyllabic and a bisyllabic structure, like *cwa* ~ *cu.wa* ‘beer’, *chwa* ~ *chu.wa* ‘sugarcane’, *nwak* ~ *nu.wak* ‘bird’ and *yaŋcuklik* ~ *yaŋcugu-lik* ‘ant’ suggest this. Comparison with related languages like Belhare

and Chintang provides further evidence for a former bisyllabic structure: Chintang and Belhare have *cuwa* and *cua*, respectively, for ‘water’, and Belhare furthermore has *nua* for ‘bird’ (Bickel1997Dictionary; Raietal2011_Chintangdict). For Athpare, both bisyllabic and monosyllabic forms are attested (Ebert1997A-grammar).

On the other hand, complex onsets are not uncommon in Tibeto-Burman. Word-initially, the status of CL sequences as complex onsets is robust, but word-internally, alternative syllabifications would be theoretically possible. This possibility can be ruled out at least for the clusters involving aspirated plosives, because aspirated plosives may never occur syllable-finally. A segmentation like [kith.rik.pa] or [aph.lum] would violate the restriction on a well-formed syllable coda in Yakkha, so that it has to be [ki.thrik.pa] and [a.phlum] (‘policeman’ and ‘hearth’), respectively. For unaspirated plosives, it is hard to tell how they are syllabified. Not all logically possible onsets occur, and some are only possible in morphologically complex (both inflected and derived) words. Some examples of complex onsets are provided in Table ?? and Table ?. Onset types not shown in the tables do not occur.

Table 3.7: Complex onsets with liquids

	/l/	/r/
/p/	<i>i.plik</i> ‘twisted’	<i>ca.pra</i> ‘spade’
/ph/	<i>a.phlum</i> ‘trad. hearth’	<i>phim.phru.wa</i> ‘soap berry’
/k/	<i>saklum</i> ‘frustration’	<i>thaŋ.kra</i> ‘store for grains’
/kh/	(-)	<i>tu.khruk</i> ‘head’
/s/	(-)	<i>mik.srumba</i> ‘blind person’
/n/	<i>nlu.ya.ha</i> ‘they said’	(-)

The second set of onsets has the shape NC, where N stands for an unspecified nasal and C for any stem-initial consonant. This type of onset is found only when one of the nasal prefixes is attached to a stem, never in monomorphemic syllables, and never in syllables inside a word. The value of the nasal is conditioned by the place of articulation of the following consonant. Based on auditory evidence, I conclude that the nasal

Table 3.8: Complex onsets with glides

/w/	/y/
/p/ (-)	<i>pyaŋ.na</i> ‘he/she gave it to me’
/ph/ <i>tam.phwak</i> ‘hair’	<i>tu.ga.bhyek.sa.na</i> ‘he/she is about to get ill’
/t/ <i>twa</i> ‘forehead’	(-)
/th/ <i>thwaŋ</i> ‘smelly’ (IDEOPH)	(-)
/c/ <i>cwa</i> ‘heart’	<i>cya</i> ‘child’
/ch/ <i>chwa</i> ‘sugarcane’	<i>op.chyaŋ.me</i> ‘firefly’
/k/ (-)	<i>kya</i> ‘Come up!’
/kh/ <i>o.sen.khwak</i> ‘bone’	<i>khya</i> ‘Go!’
/s/ <i>swak</i> ‘secretly’	<i>sya.na</i> ‘He/she died.’
/n/ <i>nwak</i> ‘bird’	<i>(ayupma) nyu.sa.ha</i> ‘I am tired.’

is not syllabified. However, as the processes related to prosody or to morphophonology either exclude prefixes from their domain or they apply across syllable boundaries as well, I could not find independent evidence for this claim. The nasal prefixes may have the following morphological content: 3PL.S/A and negation on verbs (see (6a) and (6b)), a second person possessive on nouns (see (6c)), and a distal relation in spatial adverbs and demonstratives (see (6d) and (6e)).

- (6) a. *mbya.gha*
 /N-pi?-a-ka=ha/
 3PL.A-give-PST-2.P=NMLZ.NSG
 ‘They gave it to you.’
- b. *ŋkhyan.na*
 /N-khe?-a-n=na/
 NEG-go[3SG]-PST-NEG=NMLZ.SG
 ‘He did not go.’
- c. *mbar*
 /N-paŋ/
 2SG.POSS-house
 ‘your house’

3 Phonology

- d. *ŋkhaʔ.la*
 /N-khaʔ.la/
 DIST-like_this
 ‘like that’
- e. *nnhe*
 /N-nhe/
 DIST-here
 ‘there’

The coda is restricted to nasals, unaspirated plosives and, rarely, /r/ (cf. §?? above). The plosives are often unreleased or neutralized to [ʔ] in the coda, unless they are at the end of a word. While the glottal stop frequently occurs in syllable codas, it is never found at the end of a phonological word (as defined by the stress domain).

Table ?? summarizes the possible syllable in Yakkha. If the form of a morpheme does not agree with the syllable structure, several strategies may apply. If, for instance, a verbal stem ends in two consonants (C-s, C-t), as *chimd* ‘ask’ or *yuks* ‘put’, and a vowel follows the stem in an inflected form, the stem-final consonant becomes the onset of the next syllable (see (7)). If a consonant follows the stem, the final consonant of the stem is deleted (see (8)).

Table 3.9: The syllable

ONSET	NUCLEUS	CODA
any consonant (except /r/)	any	unasp. plosive,
obstruent + liquid, glide	vowel	nasal,
nasal + any consonant (except /r/)		/r/
any consonant (except /r/)	diphthong	

- (7) a. *chim.duŋ.na*
 /chimd-u-ŋ=na/
 ask-3.P[PST]-1SG.A=NMLZ.SG
 ‘I asked him.’

- b. *chim.daŋ*
 /chimd-a-ŋ/
 ask-IMP-1SG.P
 'Ask me!'
- (8) a. *chim.nen.na*
 /chimd-nen=na/
 ask-1>2[PST]=NMLZ.SG
 'I asked you.'
- b. *men.chim.le*
 /men-chimd-le/
 NEG-ask-CVB
 'without asking'

In certain morphological environments and in fast speech, more complex onsets are possible, with the form NCL (nasal-consonant-liquid/glide), but this is restricted to particular inflected verb forms, namely third person plural or negated nonpast forms of verbs with open stems (or with CV? stems) (see (9)). Each part of the onset belongs to another morpheme. The complex cluster is a consequence of the deletion of the stem vowel. This process is further restricted to stems with back vowels (/a/, /u/ and /o/).

- (9) a. *nlwa.na*
 /N-lu?-wa=na/
 3PL.A-tell-NPST[3.P]=NMLZ.SG
 'They will tell him.'
- b. *njwa.ŋan.na*
 /N-ca-wa-ŋa-n=na/
 NEG-eat-NPST-1SG.A[3.P]-NEG=NMLZ.SG
 'I will not eat it.'

3.3 The phonological treatment of Nepali and English loans

The phonological features of Yakkha are also reflected by the treatment of Nepali and English loans, as shown in Tables ?? and ??. Several processes may apply to adjust non-native lexemes to Yakkha phonology. Apart from the regular processes discussed below, one can encounter many changes in the vowel qualities, but they cannot be ascribed to any regular sound change.

As adjacent vowels are a marked structure in Yakkha, sequences of vowels, as well as vowels which are separated only by /h/, are typically changed to one vowel. The intervocalic /h/ is, however, not completely lost, but preserved as aspiration of the preceding consonant, shown by the last three examples of Table ??. This process happens irrespective of how the words are stressed in Nepali.

Another typical process is the change of nasal vowels to nasal consonants:¹⁰ hortative verb forms like *jum* ‘Let’s go!’ or *herum* ‘Let’s have a look!’ seem to have been built in analogy to the shape of Yakkha hortative verb forms, which also end in *-um*, at least in the transitive verbs. The words *thon*, *alenci* and *gumthali* illustrate the same process (and also the change of diphthongs to simple vowels).

Some loans show the neutralization of voiced and voiceless consonants that is typical for Eastern Kiranti, e.g. *tukkhi* (from Nepali *dukha* ‘sorrow, pain’). Probably, such words entered the Yakkha language in an earlier stage of the Nepali-Yakkha contact, when people were not yet bilingual. Nowadays there are many Nepali loans in Yakkha that are pronounced as in Nepali.

The word *duru* (from Nepali *dudh* ‘milk’) shows a strategy to satisfy the constraint against aspirated plosives at the end of the syllable or word (and against aspirated voiced plosives in general).¹¹

Another typical process encountered was closing word-final open

¹⁰ Marginally, nasal vowels may occur in Yakkha, but the environments are highly restricted, and a nasal realization of a vowel is always motivated by an underlying nasal consonant (cf. §??).

¹¹ The use of cow or goat milk or milk products is very rare in Yakkha culture (noted also by Russell1992_Yakha), and thus, the borrowing of this word is not surprising.

syllables by /k/. For example, *belā* ‘time’ becomes [belak], *bihāna* ‘morning’ becomes [bhenik] and *duno* ~ *duna* ‘leaf bowl’ becomes [donak] in Yakkha. Words that end in other consonants than /k/ may also be modified to end in /k/, e.g. *churuk* ‘cigarette’, from Nepali *churoṭ*.

Some English loan words, shown in Table ??, illustrate that complex codas and voiced codas are not acceptable in Yakkha. Word-initial clusters of fricative and plosive are also marked, and a vowel is prothesized to yield a syllable that corresponds at least to some of the prosodic constraints of Yakkha (but this also happens in the pronunciation of Nepali native speakers). Finally, as Yakkha has no distinctions of length or tenseness of vowels, the difference between e.g. English *sheep* and *ship* is usually not noticed or produced if such words are borrowed. Both words are pronounced with a short [i], that is however slightly more tense than in English *ship*.¹²

The words selected here illustrate how some of the principles of the Yakkha sound system and the phonological rules are applied to non-native material. The Yakkha phonology in borrowed lexemes is not equally prominent among speakers. It depends on many factors, most obviously the proficiency in the donor languages, the time-depth of the borrowing.

3.4 Stress assignment

This section deals with the rules for stress assignment and the domain to which these rules apply. The rules for stress assignment can be laid out as follows: by default, the first syllable carries main stress. Closed syllables, however, attract stress. If there are closed syllables, the main stress moves to the last closed syllable, as long as it is not the final syllable of a word, demonstrated by the examples in Table ?? for nouns,¹³ and in (10) for inflected verbal forms. The forms in these examples differ with regard to the position of the last closed syllable in the word, and

¹² The words displayed in the tables occurred regularly in at least some speaker’s idiolects. Nevertheless, I do not want to make any strong claims about what is borrowed and what is code-switching, as this is not the purpose of my study.

¹³ Both simple and complex nouns (at least historically) can be found in this table, their etymology does not affect the stress assignment.

Table 3.10: Nepali loans in Yakkha

YAKKHA	NEPALI	GLOSS
<i>jum</i>	<i>'jā.aũ</i>	'Let us go.'
<i>herum</i>	<i>'he.raũ</i>	'Let us have a look.'
<i>thoŋ</i>	<i>thāũ</i>	'place'
<i>gumthali</i>	<i>gaũthali</i>	'swallow'
<i>alenci</i>	<i>alaĩci</i>	'cardamom'
<i>tuk.khi</i>	<i>dukha</i>	'sorrow, pain'
<i>du.ru</i>	<i>dudh</i>	'(animals') milk'
<i>chen</i>	<i>ca.'hĩ</i>	(topic particle)
<i>bhenik</i>	<i>bi.'hā.na</i>	'morning'
<i>bhya</i>	<i>'bi.hā</i>	'wedding'

Table 3.11: English loans in Yakkha

YAKKHA	ENGLISH
<i>'roŋ</i>	'road'
<i>'phlim</i>	'film'
<i>'phren</i>	'friend'
<i>is.'tep</i>	'step'
<i>is.'kul</i>	'school'

thus, by the condition that makes the stress move from the first syllable towards the end (but only up to the penultimate syllable). Predicates that consist of more than one verbal stem behave like simple verbs in this respect (see (11)).

Table 3.12: Default stress

Yakkha	gloss
<i>'om.phu</i>	'verandah'
<i>'kho.rek</i>	'bowl'
<i>'ca.ram</i>	'yard'
<i>'ko.ko.mek</i>	'butterfly'
<i>'ol.lo.bak</i>	'fast'
<i>'tok.ca.li</i>	'buttocks'
<i>'yok.yo.rok</i>	'beyond, a bit further'
<i>'kam.ni.bak</i>	'friend'
<i>wa.'riŋ.ba</i>	'tomato'
<i>cu?.'lum.phi</i>	'stele, stick'
<i>nep.'nep.na</i>	'short one'
<i>op.'chyaŋ.me</i>	'firefly'
<i>cik.ci.'geŋ.ba</i>	'Bilaune tree'

- (10) a. *'tum.me.cu.na*
 /tund-me?-ci-u=na/
 understand-NPST-DU.A-3.P=NMLZ.SG
 'They (dual) understand him.'
- b. *,ndum.men.'cun.na*
 /n-tund-me?-n-ci-u-n=na/
 NEG-understand-NPST-NEG-DU.A-3.P-NEG=NMLZ.SG
 'They (dual) do not understand him.'
- c. *,tum.me?.'nen.na*
 /tund-me?-nen=na/
 understand-NPST-1>2=NMLZ.SG
 'I understand you.'

3 Phonology

- (11) a. *luk.ta.khya.na*
 /lukt-a-kheʔ-a=na/
 run-PST-V2.GO-PST[3SG]=NMLZ.SG
 'He ran away.'
- b. *luk.ta.khyaŋ.na*
 /lukt-a-kheʔ-a-ŋ=na/
 run-PST-V2.GO-PST-1SG=NMLZ.SG
 'I ran away.'

Examples like *kam.ni.bak* 'friend' show that the stress never moves to the final syllable, even when the syllable is heavy. Patterns where the final syllable is stressed are possible though, because prefixes are not part of the stress domain. In monosyllabic nouns that host a possessive prefix, the stress generally remains on the stem, as in (12).

- (12) a. *a.paŋ*
 /a-paŋ/
 1SG.POSS-house
 'my house'
- b. *u.phuŋ*
 /u-phuŋ/
 3SG.POSS-flower
 'his/her flower'

Yakkha has a category of obligatorily possessed nouns, and some of them, mostly kin terms, have undergone lexicalization. They are all monosyllabic. With regard to stress, the prefix is no longer distinguished from the stem, as examples like *a.mum* 'grandmother', *a.pum* 'grandfather', *a.na* 'elder sister', *a.phu* 'elder brother' show.¹⁴ The words are, however, not morphologically opaque, as the first person possessive prefix *a-* can still be replaced by other prefixes in a given context, and then, the stress pattern changes to the expected one, e.g. *u.mum* 'his grandmother'. An example for lexicalized obligatory possession beyond the domain of kinship is the word *u.wa* 'liquid, nectar, water'.

¹⁴ In the domain of kinship, forms with first person singular inflection are also used in default contexts, when no particular possessor is specified. The default possessive prefix for nouns denoting part-whole relations is the third person singular *u-*.

The shift of stress described above occurs only in monosyllabic kin terms. In bisyllabic words, the stress is again on the first syllable of the stem or on the syllable that is closed. Terms like *a.ˈnun.cha* ‘younger sibling’ (both sexes) or *a.ŋo.ˈtɛŋ.ma* ‘sister-in-law’ illustrate this.

As Yakkha is a predominantly suffixing language, there are not many prefixes that could illustrate the fact that the domain of stress does not include prefixes. Apart from the possessive prefixes, evidence is provided by reduplicated adjectives and adverbs like *pha.ˈphap* ‘entangled, messy’ or *son.ˈson* ‘slanted, on an angle’. The base for these words are verbal stems, in this case *phaps* ‘entangle, mess up’ and *sos* ‘lie slanted’. Their stress pattern allows the conclusion that this kind of reduplication is a prefixation (for the other morphophonological processes involved cf. §??).

Clitics generally do not affect stress assignment, since they are attached to the phrase and thus to a unit that is built of words to which stress has already been assigned.¹⁵ Examples are provided in (13) for case clitics and in (14) for discourse-structural clitics.

- (13) a. *ˈkho.rek.ci*
 /khorek=ci/
 bowl=NSG
 ‘the bowls’
 b. *ˈtaŋ.khyaŋ.bhaŋ*
 /taŋkhyāŋ=phaŋ/
 sky=ABL
 ‘from the sky’
 c. *ˈkam.ni.bak.ci.nuŋ*
 /kamnibak=ci=nuŋ/
 friend=NSG=COM
 ‘with the friends’

¹⁵ The term ‘clitic’ may have two readings: (i) affixes that are categorically unrestricted (represented by the equals sign ‘=’ instead of a hyphen ‘-’), or (ii) phonologically bound words, like demonstratives. The latter are written separately in the orthography used in this work, as they may also appear independently and they have the ability to head phrases.

3 Phonology

- (14) a. *a. 'yu.bak.se*
 /a-yubak=se/
 1SG.POSS-goods=RESTR
 ‘only my goods’
 b. *u. 'kam.ni.bak.ko*
 /u-kamnibak=ko/
 3SG.POSS-friend=TOP
 ‘his friend(, though)’

An exception to this rule is the nominalization in =*na* and =*ha*. These nominalizers may attach to the verbal inflection, in relative clauses, complement clauses or in main clauses (see §??). They are categorically unrestricted (i.e., taking not only verbal hosts), and not an obligatory part of the verbal inflection. However, if they attach to the verb, they are part of the stress domain. If this was not the case, stress assignment as in *luk.ta. 'khyan.na* ‘I ran away.’ would be unexpected, because then the stress would be on the final syllable of the stress domain, which violates the prosodic constraints of Yakkha. The anomalous behavior of the nominalizers is not unexpected in light of the fact that they are being reanalyzed from discourse markers to part of the inflectional morphology.¹⁶

It is hard to tell whether there is secondary stress. Even in words with five syllables, like in (14b), no secondary stress could be detected. Secondary stress was clearly audible in compounds such as those shown in Table ???. It is found on the first syllable of the second part of the compound, while the main stress remains on the first syllable of the whole compound. Such compounds may override the general restriction against stress on word-final syllables. In inflected verb forms, secondary stress can be found on the verbal stem, e.g. in *ndum.men.cu. 'han.na* ‘We (dual) do not understand him.’, cf. also examples ?? and ?? above.

Finally, one exception to the stress rules has to be mentioned. Yakkha has several triplicated ideophonic adverbs, where the first syllable is the base and the second and third syllable rhyme on the vowel, but replace the initial consonant with a liquid, a glide or a coronal stop,

¹⁶ For instance, they also show number agreement with verbal arguments, with =*na* indicating singular and =*ha* indicating nonsingular or non-countable reference.

Table 3.13: Stress in compounds

YAKKHA	GLOSS
<i>'ko.len, lun</i>	'marble stone' ('smooth-stone')
<i>'pi.pi, sin</i>	'straw, pipe' ('([redup]suck-wood')
<i>'yo.nin, khe.nin</i>	'hither and thither' ('while thither-while hither')
<i>'mo.nin, to.nin</i>	'up and down' ('while down-while up')
<i>'sa.meʔ, chon</i>	'protoclan' ('clan-top')
<i>'lim.bu, khim</i>	a clan name, composed of the term for the Limbu ethnic group and a word for 'house' in many Kiranti languages

e.g. [se.re.'re:] 'drizzling', or [hi.wi.'wi:] 'pleasantly breezy' (cf. §??). In addition to the triplication, the vowel of the last syllable is lengthened, and the stress is always on the last syllable in these adverbs.

3.5 Morphophonological processes

This section discusses the various morphophonological processes in Yakkha. The domains to which certain rules and processes apply are not always congruent. The existence of more than one phonological domain and the problems for theoretical approaches that assume a prosodic hierarchy have already been discussed for Limbu, another Eastern Kiranti language (Hildebrandt2007Prosodic; Schieringetal2010The-prosodic). Yakkha adds further support to challenges for the assumption that domains of prosodic rules are necessarily hierarchically ordered.

The following phonological domains could be identified in Yakkha morphophonology: the rules for stress assignment disregard prefixes and phrasal affixes. In contrast, the vowel harmony establishes a relation between the prefix and the stem only, ignoring the suffixes. The voicing rule has the broadest domain (cf. §?? below). Furthermore, some rules differentiate between morphologically simple and compound words. The voicing rule and also various repair operations of marked structures like adjacent obstruents are sensitive to morpheme boundaries, the lat-

ter, more precisely, to stem boundaries.

Figure ?? provides an overview of the different domains to which the morphophonological processes apply.¹⁷ Section ?? deals with the voicing rule. The prefixation of underspecified nasals is treated in §??. A case of vowel harmony is described in §??. Adjacent vowels are not preferred in Yakkha, and strategies to avoid such undesirable sequences are treated in Section ?. Section ?? deals with consonants in intervocalic environments. Section ?? describes assimilations. The employment of nasals to repair marked sequences of adjacent obstruents as well as adjacent vowels in complex predicates is discussed in §??. Finally, §?? is concerned with a process of nasal copying which is found in the verbal inflection of many Kiranti languages.

	prefix	stem(s)	suffixes	clitics
(1)		stress assignment		
(2-a)	voicing/N_			
(2-b)		voicing/V_V		
(3)	vowel harmony			

Figure 3.2: Summary of phonological domains

3.5.1 Voicing

In Yakkha, unaspirated plosives and the affricate are voiced in intervocalic and postnasal environments and before liquids and glides, as schematized in Figure ??, where C stands for unaspirated plosives and the affricate, N for nasals and L for liquids and glides. Voicing predominantly applies at morpheme boundaries, but also inside words that, at least synchronically, cannot be split up further into separate morphemes. The rule is illustrated by example (15), with the stem-final /k/

¹⁷ The morphological structure of the word is slightly simplified in the table, disregarding complex predicates that consist of more than one verbal stem. Complex predicates are treated identically to simple words by the stress rule and the voicing rule (except for the behavior of /c/).

of the verb *yokma* ‘search’, and by (16), with the stem-initial /t/ of the verb *tama* ‘come’.

C.UNVOICED	→	C.VOICED/N_
C.UNVOICED	→	C.VOICED/V_V
C.UNVOICED	→	C.VOICED/_L

Figure 3.3: Voicing rules

- (15) a. *yoknenna*
 /yok-nen=na/
 search-1>2[PST]=NMLZ.SG
 ‘I looked for you.’
 b. *yogu*
 /yok-u/
 search-3.P[IMP]
 ‘Look for it!’
- (16) a. *tame?na*
 /ta-me?=na/
 come[3SG]-NPST=NMLZ.SG
 ‘He will come.’
 b. *ndamenna*
 /N-ta-me?-n=na/
 NEG-come[3SG]-NPST-NEG=NMLZ.SG
 ‘He will not come.’

Some environments containing liquids and glides that trigger voicing are shown in Table ??, with both monomorphemic and multimorphemic words. Some words are found with either pronunciation, and the current conclusion is that allegro speech leads to voicing, and that this became the norm for some words, but not for others.

As shown above, the voicing rule applies to lexical stems, but it also applies to inflectional morphemes and phrasal affixes (see (17)). Thus, the domain for voicing is bigger than the domain that is relevant for stress, as phrasal affixes undergo voicing, and as prefixes may trigger

Table 3.14: Voicing before liquids and glides

	Yakkha	gloss
/pl/	<i>taplik ~ tablik</i> <i>hoblek</i>	‘story’ [manner of throwing or pouring] ‘the whole/ at once’
/pr/	<i>hobrek</i> <i>khibrum.ba</i>	‘completely [rotten]’ ‘fog’ (also derogative for people of Caucasian phenotype)
/tr/	<i>honɖrup</i>	‘pig as present for in-laws’
/kw/	<i>cogwana</i>	‘he does it’
/pw/	<i>ubwaha</i>	‘he earns [money]’
/khy/	<i>maghyam</i>	‘old woman’
/tr/	<i>phetrak ~ phedrak</i>	‘petal’
/pr/	<i>capra ~ cabra</i>	‘spade with long handle’
/pl/	<i>lupliba ~ lubliba</i>	‘earthquake’

voicing as well.

- (17) a. *honmacibego*
 /hoŋma=ci=pe=ko/
 river=NSG=LOC=TOP
 ‘in the rivers(, though)’
 b. *tummecuganabu*
 /tum-me?-c-u-ka=na=pu/
 understand-NPST-DU-3.P.-2.A=NMLZ.SG=REP
 ‘(People say that) you (dual) understand him/her.’

After this outline of the basic properties of voicing in Yakkha, let us now turn to its details. The voicing rule needs further specification for prefixes. While nasal prefixes trigger voicing, vocalic prefixes are excluded from the voicing domain, irrespective of other factors such as stress. I have shown in Section ?? above that voicing is triggered neither in *a.ʔpaŋ* ‘my house’ nor in *a.pum* ‘(my) grandfather’. Only prefixes that consist of a nasal trigger voicing, as shown in (18).

- (18) a. *mbaŋ*
 /N-paŋ/
 2SG.POSS-house
 ‘your house’
 b. *ŋ-gamnibak*
 /N-kamnibak/
 2SG.POSS-friend
 ‘your friend’

In §?? on stress assignment, I mentioned reduplicated adjectives and adverbs. They also provide further evidence for the restriction of the voicing rule to nasal prefixes. I will exemplify this with the two adjectives *bumbum* ‘compact and heavy’ and *tutu* ‘far up’ (cf. §?? for more examples). The base of the adjective *bumbum* has the corresponding verbal stem *pups* ~ *pum* ‘fold, press, tuck up’, while the base of *tutu* is the adverbial root *tu* ‘uphill’. In analogy to the stress behavior, my default assumption is that the reduplication is a prefixation, although the voicing facts would support either option. The stem allomorph *pum* is reduplicated to /pum-pum/ (the stem *pups* surfaces only before vowels) and, subsequently, the stem undergoes voicing, which is then spread to the first syllable to preserve the identity between the base and the reduplicated morpheme. In contrast to this, in *tutu* ‘far up’, the intervocalic environment that results from the reduplication does not trigger voicing.

As stated in the beginning of this section, voicing does not apply to aspirated plosives, at least not in the Tumok dialect (see (19)). Exceptions are found only in a handful of lexemes, mostly in ideophonic adverbs (see §??). However, aspirated plosives (and the affricate) get voiced when they occur as function verbs,¹⁸ i.e., in word-medial position (see (20)). These complex predicates also constitute one domain for stress assignment, in contrast, for instance, to the southern neighbour language Chintang, where each verbal stem in a complex predicate constitutes a stress domain on its own (Bickeletal2007Free).

¹⁸ Function verbs are grammaticalized verbs, glossed as ‘V2’, see Chapter ??.

3 Phonology

- (19) a. *ŋkhyanna*
 /N-khy-a-n=na/
 NEG-go[3SG]-PST-NEG=NMLZ.SG
 ‘He did not go.’
 b. *memphaʔle*
 /meN-phat-le/
 NEG-help-CVB
 ‘without helping’
- (20) a. *kam cog-a-ghond-a-ga=i*
 /kam cok-a-khond-a-ka=i/
 work do-IMP-V2.ROAM-IMP-2=EMPH
 ‘Go on working.’
 b. *hab-a-bhoks-a=na*
 /hap-a-phoks-a=na/
 cry-PST-V2.SPLIT[3SG]-PST=NMLZ.SG
 ‘She broke out in tears.’

Yakkha has a class of composite predicates that consist of a noun and a verb. They show varying degrees of morphosyntactic freedom, but they are generally not as tightly fused as the verb-verb predicates. This is also reflected by stress: noun and verb each have their own stress, even if this results in adjacent stress. Voicing, too, treats both components as separate items (see (21)).¹⁹

- (21) a. *ˈsa.ya* *ˈpok.ma*
 /saya pok-ma/
 head.soul raise-INF
 ‘to raise the head soul’ (a ritual)
 b. *ˈluŋ.ma* *ˈtuk.ma*
 /luŋma tuk-ma/
 liver pour-INF
 ‘to love’

¹⁹ These predicates form a lexical unit though, and the nouns do not enjoy the syntactic freedom that is expected of full-fledged arguments. These predicates are best understood as idiomatic phrases (cf. Chapter ??).

- c. 'sak 'tu.ga.nai?
 /sak tug-a=na=i/
 hunger ache[3SG]-PST=NMLZ.SG=Q
 'Are you hungry?/ Is he hungry?/ Are they hungry?'

Between vowels, voiced stops may further assimilate to their surrounding material and become continuants, as several alternations between intervocalic [b] and [w] show. Thus, *kamnibak* 'friend' may also be pronounced [kamniwak], or the imperative of *apma* 'to come (from a visible distance on the same level)' can alternate between [aba] and [awa]. Like in Belhare (Bickel1998Rhythm), intervocalic /t/ may also become a continuant /r/, as some historical stem changes (e.g. **thut* → *thur*) and some function verbs show, e.g., the function verb *ris* that originates in the lexical stem *tis* 'apply, invest', or *ra?* originating in the lexical stem *ta?* 'bring (from further away)'.

The suffix *-ci* does not get voiced, neither in verbal nor in nominal inflection, as example ?? has already shown. This exceptional behavior might point towards a more complex historical form of this suffix. The only instance of a voiced marker *-ci* is in the second person dual pronoun *njiŋda* (you), which is complex at least from a historical perspective.

The affricate /ts^h/ (written <c>) behaves exceptionally in other contexts, too. In the function verb *ca* 'eat' it does not undergo voicing (see (22a)),²⁰ for which there is no neat explanation yet. Example (22b) shows that voicing does apply to plosives in function verbs, and as example (23) shows, stem-initial /c/ does get voiced in other environments. In some morphemes, the affricate shows free variation, as in the additive focus clitic =*ca*. It is found both voiced and unvoiced, neither related to individual nor to dialectal differences.

- (22) a. *incama*
 /in-ca-ma/
 trade-V2.EAT-INF
 'to sell'

²⁰ This function verb is the only one with initial /c/.

3 Phonology

- b. *hambi?ma*
 /ham-pi?-ma/
 distribute-V2.GIVE-INF
 ‘to distribute (among people)’
- (23) a. *njogwana*
 /n-cok-wa=na/
 3PL.A-do-NPST=NMLZ.SG
 ‘They will do it.’
- b. *men-ja-le*
 /men-ca-le/
 NEG-eat-CVB
 ‘without eating’

Another exception to the voicing rule has to be mentioned, shown in (24a) and (24b). Stem-final /t/ remains voiceless between vowels. If the stem ends in a nasal and /t/, voicing applies, as in (24c), and stem-initial /t/ undergoes voicing as well. The absence of voicing at the end of stems can be explained with the history of the /-t/ final stems. Comparison with Chintang and Belhare (Bickel2003Belhare; Bickeletal2007Free) shows that there must have been geminated /tt/, resulting from a CVt stem to which the augment -t was added (discussed in §??). Voicing does not apply when there is more than one underlying consonant between the vowels.

- (24) a. *mituna*
 /mit-u=na/
 remember[PST]-3.P=NMLZ.SG
 ‘He remembered it.’
- b. *phatuci!*
 /phat-u-ci/
 help-3.P[IMP]-NSG.P
 ‘Help them!’
- c. *chem endugana?*
 /chem ent-a-u-ka=na/
 song apply-PST-3.P-2.A=NMLZ.SG
 ‘Did you put on music?’

3.5.2 The prefixation of underspecified nasals

Yakkha has several nasal prefixes that do not constitute syllables of their own, but result in onsets that consist of prenasalized consonants. The prefixes are underspecified for the place of articulation, and thus they always assimilate to the place of articulation of the following consonant. The nasal prefixes also trigger voicing stem-initially, as could already be seen in §?? above. These nasal prefixes have several morphemic values, already mentioned in §??, and repeated here for convenience: they index third person plural S and A arguments on verbs (25a) and verbal negation (25b). The nasal prefixes also encode second person singular possessors on nouns (25c), and in adverbs, they encode a distal relation (see (25d)). If the nasal prefix is attached to a nasal-initial stem, it yields an initial nasal geminate (see (26)).

- (25) a. *m-by-a-ga-n=ha*
 3PL.A-give-PST-2.P-NEG=NMLZ.NSG
 ‘They gave it to you.’
- b. *ŋ-khy-a-n=na*
 NEG-go[3SG]-PST-NEG=NMLZ.SG
 ‘He did not go.’
- c. *m-baŋ*
 2SG.POSS-house
 ‘your house’
- d. *ŋ-kha?la*
 DIST-like_this
 ‘like that’
- (26) a. *m-ma*
 2SG.POSS-mother
 ‘your mother’
- b. *n-nhe*
 DIST-here
 ‘there’

If the stem begins in a vowel or in /w/, the nasal is realized as velar nasal (see (27)). This fact might lead to the conclusion that actually /ŋ/ is the underlying form and gets assimilated. This would, however, be

the only instance of a morphophonological change from a velar nasal to [m] or [n] in Yakkha, and thus, this option seems unlikely to me.

- (27) a. *ŋ-og-wa-ci=ha*
 3PL.A-peck-NPST-3NSG.P=NMLZ.NSG
 ‘They (the roosters) peck them (the chicks).’
 b. *ŋ-ikt-haks-u-ci*
 3PL.A-chase-V2.SEND-3.P[PST]-3NSG.P
 ‘They chased them away.’
 c. *kham ŋ-wapt-u=ha*
 soil 3PL.A-scratch-3.P[PST]=NMLZ.NSG
 ‘They (the chicken) scratched the ground (they scrabbled about on the ground).’

A syllable with a nasal before the consonant is marked in terms of the sonority hierarchy (Jespersen1904_Lehrbuch; Selkirk1984_SyllableTheory; Hall2000Phonologie). Therefore, the following process can be noticed: if the preceding word (in the same clause) ends in a vowel, the nasal will resyllabify to the coda of the preceding word (see (28)), just as in Belhare (Bickel2003Belhare). I have shown above that the domains for stress and for voicing are not identical. This process adds a third domain of phonological rules to the picture, encompassing two words in terms of stress assignment, as each of the words carries its own stress. Even though the nasal belongs to the preceding word in terms of syllable structure, the choice of the nasal is determined by the following consonant, which also undergoes voicing due to the nasal. This suggests a sequence of morphophonological processes, of which this resyllabification is the last to apply.

- (28) a. *liŋkhaci namnuŋ bagarin jog-a*
 /liŋkha=ci nam=nuŋ bagari N-cok-a/
 Linkha=NSG sun=COM bet 3PL-do-PST
 ‘The Linkha clan had a bet with the sun.’ [11_nrr_01.003]
 b. *chu?maŋ gaksanoŋ*
 /chu?-ma N-kaks-a-n=hoŋ/
 tie-INF NEG-agree[3SG]-PST-NEG=SEQ
 ‘It (the cow) was not okay with being tied.’ [11_nrr_01.011]

- c. *nnam borakhyamanna*
 /nna N-por-a-khy-a-ma-n=na/
 that NEG-fall-PST-V2.GO[3SG]-PST-NEG=NMLZ.SG
 ‘That (stele) did not topple over.’ [18_nrr_03.026]
- d. *ka he?niŋcam mandi?ŋanna*
 /ka he?niŋ=ca N-mandi?-ŋa-n=na/
 1SG when=ADD NEG-get_lost-1SG-NEG=NMLZ.SG
 ‘I would never get lost.’ [18_nrr_03.015]

3.5.3 Vowel harmony

Vowel harmony in Yakkha applies only to one prefix, namely to the possessive prefix *u-* for third person. It has an allomorph *o-* that is triggered when the stressed syllable of the stem contains the mid vowels /e/ or /o/, illustrated by Table ???. Suffixes do not undergo vowel harmony in Yakkha, and neither do other prefixes.

One exceptional case has to be mentioned, the inflected form *khohetu* ‘he/she carried it off’. This is a complex verb that consists of the two verbal stems *khu?* ‘carry (on back)’ and *het* (a V2, indicating caused motion away from a reference point). Apparently, the V2 makes the vowel in the first stem change to [o]. However, this is the only instance of vowel harmony that has been encountered beyond the domain defined above.

Table 3.15: Vowel harmony

before /e/ and /o/		before /u/, /i/, /a/	
<i>o-heksaŋbe</i>	‘behind her/him’	<i>u-paŋ</i>	‘her/his house’
<i>o-hop</i>	‘her/his nest’	<i>u-hiŋgilik</i>	‘alive’
<i>o-tokhumak</i>	‘alone’	<i>u-ʈukhruk</i>	‘her/his body’
<i>o-senkhwak</i>	‘her/his bone’	<i>u-mik</i>	‘her/his eye’
<i>o-yok</i>	‘her/his place/spot’	<i>u-tingibhak</i>	‘its thorn’
<i>o-poŋgalik</i>	‘(its) bud’	<i>u-ʈaŋ</i>	‘its horn’
<i>o-phok</i>	‘her/his belly’	<i>u-muk</i>	‘her/his hand’
<i>o-ʈesraŋ</i>	‘reverse’	<i>u-nabhuk</i>	‘her/his nose’

3.5.4 Operations to avoid adjacent vowels

The processes that avoid vowel hiatus apply to adjacent vowels as well as to vowels that are separated by a glottal stop.²¹ They are found in the verbal domain, since there are no suffixes or clitics beginning with a vowel in the nominal domain.

3.5.4.1 Vowel deletion

The suffixes *-a* and *-u* can get deleted when they are adjacent to another vowel. In sequences of */-a-u/*, for instance, */a/* gets deleted (see (29a)). This rule, however, also interacts with the morphology. While the past (and imperative) suffix *-a* is deleted when it is followed by the third person patient marker *-u*, the same sequence, when it results from the nonpast marker *-wa*, results in the deletion of *-u* (see (29b)).

- (29) a. *tunduŋna*
 /*tund-a-u-ŋ=na/*
 understand-PST-3.P-1SG.A=NMLZ.SG
 ‘I understood her/him.’
 b. *tundwaŋna*
 /*tund-wa-u-ŋ=na/*
 understand-NPST-3.P-1SG.A=NMLZ.SG
 ‘I understand her/him.’

Suffix sequences of the underlying form */-a-i/* also result in the deletion of the suffix *-a* (see (30)). When */a/* is part of the stem, however, nothing gets deleted (see (30c)). Note also that intervocalic */h/* may become *[j]* (<y>), as in (30a).

- (30) a. *kheiya*
 /*kheʔ-a-i=ha/*
 go-PST-1PL=NMLZ.NSG
 ‘We went.’

²¹ Diachronically, stems ending in a glottal stop used to be CVt stems, and the */t/* got reduced to a glottal stop. Synchronically, stems ending in glottal stop often behave identical to stems that end in a vowel, in terms of morphophonological rules.

- b. *tundigha*
 /tund-a-i-ka=ha/
 understand[3.A]-PST-2PL-2=NMLZ.NSG
 ‘They understood you (plural).’
- c. *hakokŋa caiwa*
 /hakov=ŋa ca-i-wa/
 later=INS eat-1PL-NPST
 ‘We will eat later.’

Underlying sequences of three vowels are possible with open (CV and CV?) stems, in past and imperative forms with a third person patient. In these verb forms, both suffixes are deleted.

- (31) a. *piŋ.na*
 /piŋ-a-u-ŋ=na/
 give-PST-3.P-1SG.A=NMLZ.SG
 ‘I gave it to him.’
- b. *soŋ.na*
 /soŋ-a-u-ŋ=na/
 look-PST-3.P-1SG.A=NMLZ.SG
 ‘I looked at it.’
- c. *ha!*
 /haŋ-a-u/
 bite-IMP-3.P
 ‘Bite (into) it!’
- d. *cam.na*
 /ca-a-u-m=na/
 eat-PST-3.P-1PL.A=NMLZ.SG
 ‘We ate it.’

3.5.4.2 Ablaut

Ablaut is found only in one verb, in *cama* ‘eat’. Ablaut in some verbs is not unusual in Kiranti perspective. The stem *ca* has an allomorph *co* that is not predictable from the phonological environment. It occurs when followed by other vowels, but not in all environments that would predict such a change if this was the condition. Its distribution over the

paradigm is shown in Chapter ??, on page ??.

3.5.4.3 Insertion of glides

If the back vowels (/a/, /o/ and /u/) belong to a verbal stem and are followed by the suffix *-a*, the glide /y/ is inserted to avoid vowel hiatus. The morphological environment for these vowel sequences is provided by intransitive verbs, as well as in intransitive verb forms with first or second person patients (see (32)). A similar process can be encountered with stems that end in /ʔ/, with /ʔ/ being replaced by /y/, as in (32d).

- (32) a. *mima uhoŋbe uyana*
 /mima u-hoŋ=pe u-a=na/
 mouse 3SG.POSS-hole=LOC enter[3SG]-PST=NMLZ.SG
 ‘The mouse entered her mousehole.’
- b. *nam ayana*
 /nam a-a=na/
 sun descend[3SG]-PST=NMLZ.SG
 ‘The sun went down.’
- c. *tayana*
 /ta-a=na/
 come[3SG]-PST=NMLZ.SG
 ‘He came.’
- d. *soyaŋgana*
 /soʔ-a-ŋ-ka=na/
 look-PST-1SG.P-2.A=NMLZ.SG
 ‘You looked at me.’

3.5.4.4 Gliding

Front vowels of verbal stems may also be reduced to glides when they are adjacent to /a/. The syllable nucleus of the stem becomes part of the onset, and the word is again reduced by one syllable, which is obvious because of the stress pattern. Example (33a) and (33b) illustrate this for stems ending in glottal stops and (33c) shows the same process with an open stem.

- (33) a. *'khyan.na*
 /kheʔ-a-ŋ=na/
 go-PST-1SG=NMLZ.SG
 'I went.'
- b. *'pyan.na*
 /piʔ-a-ŋ=na/
 go[3SG.A]-PST-1SG.P=NMLZ.SG
 'He gave it to me.'
- c. *'sya.na*
 /si-a=na/
 die[3SG]-PST=NMLZ.SG
 'He/she died.'

This may also happen when the stem has a back vowel. So far, this was only encountered for the verb *luʔma* (see (34)). Other verbs, e.g. *chuʔma* 'tie' appear in the expected form, e.g. *chuyan.na* 'he tied me (to something)'.

- (34) a. *'lyan.na*
 /luʔ-a-ŋ=na/
 tell[3SG.A]-PST-1SG.P=NMLZ.SG
 'He told me.'
- b. *'lya.ha*
 /luʔ-a=ha/
 tell[3SG.A;1.P]-PST=NMLZ.NSG
 'He told us.'

3.5.5 Consonants in sonorous environment

3.5.5.1 Intervocalic /h/ and /w/

Intervocalic /h/ and /w/ also trigger vowel deletion. If the two vowels surrounding /w/ or /h/ have the same quality, the preceding vowel is deleted, even if this is the stem vowel. The deletion leads to new consonant clusters, i.e., to consonants followed by /w/ (see (35a)), or to aspirated voiced plosives (see (35b)).

3 Phonology

- (35) a. *njwan.na*
 /n-ca-wa-n=na/
 NEG-eat[3SG.A]-NPST-NEG=NMLZ.SG
 ‘He/she does not eat it.’
 b. *tun.di.wa.gha*
 /tund-i-wa-ka=ha/
 understand[3.A]-2PL.P-NPST-2=NMLZ.NSG
 ‘He/they understand you (pl).’

If the vowels do not have the same quality, and there is a transition from a close to an open vowel, intervocalic /h/ may also change to [y] (see (36)).

- (36) a. *tun.dwa.ci.ya*
 /tund-wa-ci=ha/
 understand[3SG.A]-NPST-3NSG.P=NMLZ.NSG
 'He/she understands them.'
- b. *ci.ya* *maŋ.cwa*
 /ci=ha *maŋcwa/*
 get_cold=NMLZ.NSG water
 'cold water'

The change of vowels to glides and the realization of underlying /h/ as aspiration can even cross stem boundaries, as the following complex predicate, consisting of three verbal stems, shows (37). The underlying stems /piʔ/ and /heks/ fuse into [bhyeks].²²

- (37) *a.cya* *tu.ga.bhyek.sana*
 /a-cya tuk-a-pi?-heks-a=na/
 1SG.POSS-child get_ill[3SG]-PST-V2.GIVE-V2.CUT-PST=NMLZ.SG
 ‘My child is about to get ill.’

²² The V2 *-pi?* indicates that some participant (the speaker, the subject or even someone else) is affected by the event, and the V2 *-heks* specifies the temporal reference of the event as immediate prospective. In pronunciation, they get fused to [bhyeks].

3.5.5.2 Nasals in sonorous environment

Nasals in sonorous environments are prone to phonological alternations. Nasal vowels are not part of the phoneme set of Yakkha. They may be generated, however, in intervocalic environments at morpheme boundaries, or when a nasal occurs between a vowel and a liquid or a glide. This happens when the negative converb (marked by prefix and suffix: *meN-Σ-le*) attaches to an open stem, or to a stem with initial /w/, /y/ or /l/. The nasal in *meN-Σ-le* is not specified. If it attaches to stems that have initial consonants, it assimilates to their place of articulation. Examples are provided in Table ??.

Another process producing nasal vowels was noticed in allegro forms of complex predicates such as *ηonsipma* ‘feel shy’ and *thensipma* ‘fit, suit’, which were pronounced *ηoĩsipma* and *theĩsipma* in fast speech.

Table 3.16: Nasals in sonorous environment

STEM	CITATION FORM	NEGATIVE CONVERB
/waʔ/	<i>waʔma</i> ‘wear, put on’	<i>mẽ.waʔ.le</i> ‘without wearing’
/a/	<i>ama</i> ‘descend’	<i>mẽ.a.le</i> ‘without descending’
/u/	<i>uma</i> ‘enter’	<i>mẽ.u.le</i> ‘without wearing’
/lap/	<i>lapma</i> ‘seize, catch’	<i>mẽ.lap.le</i> ‘without wearing’
/yok/	<i>yokma</i> ‘search’	<i>mẽ.yok.le</i> ‘without wearing’

3.5.6 Assimilations

Syllable-final coronals assimilate to coronal fricatives, yielding a geminated fricative [s:] (written <ss>) (see (38)). This assimilation is connected to stress. In unstressed syllables, no assimilation occurs, and the stem-final /t/ is simply deleted before fricatives (see (38c)). Occasionally, stem-final glottal stops can also undergo this assimilation, but this is subject to free variation.

3 Phonology

- (38) a. *es.se*
 /et-se/
 apply-SUP
 ‘in order to apply’
 b. *mis.san*
 /mit-san/
 remember-SIM
 ‘remembering’
 c. *ki.si.san*
 /kisit-san/
 be_afraid-SIM
 ‘being afraid’

The following examples show that this gemination does not apply to the other plosives /k/ and /p/. Stems ending in a glottal stop are treated like open stems, illustrated by (39c). Stems that have a coronal augment yield an underlying sequence of three consonants when followed by /s/. In this case, nothing gets assimilated. The general rule for augmented stems followed by consonants applies, i.e., the augment is simply omitted, as illustrated in (40).

- (39) a. *ap.se*
 /ap-se/
 shoot-SUP
 ‘in order to shoot’
 b. *cok.se*
 /cok-se/
 do-SUP
 ‘in order to do’
 c. *so.se*
 /soʔ-se/
 look-SUP
 ‘in order to look’
(40) a. *un.se*
 /und-se/
 pull-SUP

- ‘in order to pull’
 b. *chep.se*
 /chept-se/
 write-SUP
 ‘in order to write’

Furthermore, stems ending in a coronal stop, and occasionally also stems ending in a glottal stop, show a regressive assimilation to a velar place of articulation, yielding the geminate [k:] as shown in (41).

- (41) a. *phak.khuba*
 /phat-khuba/
 help-NMLZ
 ‘helper’
 b. *khek.khuba*
 /khet-khuba/
 carry_off-NMLZ
 ‘the one who carries it off’
 c. *sok.khuba*
 /soʔ-khuba/
 look-NMLZ
 ‘the one who looks’

An optional regressive assimilation, conditioned by fast speech, can be found in underlying sequences of nasals followed by a palatal glide or a lateral approximant (/y/ or /l/), both stem-initially and stem-finally. In such environments, the nasal assimilates further, giving up its feature of nasality (see (42)).

- (42) a. *lɛŋmenna*
 /N-leks-meʔ-n=na/
 NEG-become[3SG]-NPST-NEG=NMLZ.SG
 ‘It will not happen./It is not alright.’
 b. *měyelle*
 /meN-yen-le/
 NEG-obey-CVB
 ‘without listening/obeying’

- c. *yyupmaci*
 /N-yupma=ci/
 2SG.POSS-tiredness=NSG
 ‘your tiredness’²³

3.5.7 Operations involving nasals

3.5.7.1 Nasality assimilation

The nasal consonants themselves also trigger several regressive assimilation processes, either in place of articulation or in nasality. Coronals and the glottal stop are particularly prone to assimilations, while the velar and the bilabial stop are less inclined to assimilate. Stem-final /t/ and /ʔ/ will assimilate completely if they are followed by stressed syllables starting in /m/ (see (43a)). Under the same condition, stems ending in velar stops (both plain and augmented) undergo nasal assimilation, with the place of articulation being retained (see (43b) and (43c)).

- (43) a. *pham.‘meŋ.na*
 /phat-me-ŋ=na/
 help[3SG.A]-NPST-1SG.P=NMLZ.SG
 ‘He/she helps me.’
 b. *peŋ.‘meʔ.na*
 /pek-meʔ=na/
 break[3SG]-NPST=NMLZ.SG
 ‘It breaks.’
 c. *naŋ.‘meʔ.na*
 /nakt-meʔ=na/
 ask[3SG]-NPST=NMLZ.SG
 ‘He asks.’

In stems that end in /n/ or /nd/ (with augmented /t/), the coda completely assimilates to [m]. In contrast to the assimilation discussed above, this assimilation is not sensitive to stress. For instance, stems like *tund* ‘understand’ and *yen* ‘obey’ have the infinitival forms *tumma* and

²³ Some nouns are obligatorily marked for nonsingular, especially in experiential expressions.

yemma, respectively, with the stress falling on the first syllable. Stems ending in a velar stop or in a bilabial stop never assimilate completely; their place of articulation is retained. Compare, e.g. *pekma* ‘break’ (stem: *pek*) with (43b) above. Following a general rule in Yakkha, augmented stems (ending in two consonants) block assimilation and also other morphophonological processes, e.g. *chepma* ‘write’ (stem: *chept*). Furthermore, velar and bilabial nasals never assimilate to other nasals, in contrast to languages like Athpare and Belhare (Ebert1997A-grammar; Bickel2003Belhare).

3.5.7.2 Nasalization of codas

Nasalization of obstruents does not only happen as assimilation to nasal material. When obstruents are adjacent in complex predicates, the first obstruent, i.e., the stem-final consonant of the first stem, becomes a nasal in order to avoid a marked structure. Examples are provided in Table ??.²⁴ Within complex predicates this process is most frequently found in infinitival forms, as in the inflected forms morphological material (suffixes with vowel quality) gets inserted between the verbal stems, thus resolving the marked sequences of adjacent obstruents.

The nasal often retains the place of articulation of the underlying obstruent, but some assimilations are possible too, e.g., /*sos-kheʔ-ma*/ becoming *soŋkheʔma* ‘slide off’ (slide-go). If the underlying obstruent is a glottal stop, the place of articulation of the nasal is always conditioned by the following consonant, e.g., *han-cama* /*haʔ-cama*/ ‘devour’ (bite-eat).

As Table ?? shows, both simple (CVC) and augmented stems (CVC-s and CVC-t) are subject to this change from obstruent to nasal. The same change can be observed in reduplicated adverbs and adjectives, e.g., in *sonson* ‘slanted’ (derived from the verbal stem /*sos*/) or *simsim* ‘squinting, blinking’ (derived from the verbal stem /*sips*/).

This process is also sensitive to stress. The last example of Table ??, *um.kheʔ.ma*, with the stress on the second syllable, can be con-

²⁴ The V2 *-piʔ* has a suppletive form *-diʔ*, which cannot be explained by phonological operations. It occurs only in intransitive uses of *-piʔ* ~ *-diʔ* ‘give’ as a function verb. The inflected forms show that the underlying stem is *-piʔ*.

trasted with the nominalized *'up.khu.ba* 'something that collapses', with the stress on the first syllable. Here, the stem appears in the general form of *t*-augmented stems that are followed by consonants: the augment is simply omitted.

Table 3.17: Nasalization of obstruents stem-finally

CITATION FORMS		STEMS
<i>yuncama</i>	'laugh, smile'	/yut/ + /ca/
<i>suncama</i>	'itch'	/sus/ + /ca/
<i>incama</i>	'play'	/is/ + /ca/
<i>hancama</i>	'devour'	/haʔ/ + /ca/
<i>sendiʔma</i>	'get stale'	/ses/ + /piʔ/
<i>mandiʔma</i>	'get lost'	/mas/ + /piʔ/
<i>pendiʔma</i>	'get wet'	/pet/ + /piʔ/
<i>phomdiʔma</i>	'spill'	/phopt/ + /piʔ/
<i>sonsiʔma</i>	'slide, slip'	/sos/ + /siʔ/
<i>tomsiʔma</i>	'get confused'	/tops/ + /siʔ/
<i>yaŋsiʔma</i>	'get exhausted'	/yak/ + /siʔ/
<i>homkheʔma</i>	'get damaged'	/hop/ + /kheʔ/
<i>soŋkheʔma</i>	'slide off'	/sos/ + /kheʔ/
<i>umkheʔma</i>	'collapse'	/upt/ + /kheʔ/

3.5.7.3 Insertion of nasals

In addition to the nasalization of obstruents, nasals can be inserted in complex predication, if the following condition is met: if the V2 in a complex predicate starts in a vowel or in /h/, either the preceding consonants (the complete coda or only the augment of the first verbal stem) will become nasals, or, when the first stem has CV or CVʔ shape, the default nasal /n/ will be inserted between the two stems. Table ?? provides examples of citation forms of complex predicates with inserted nasals, and their underlying stems.

The process is not a blind insertion of phonetic material, i.e., it is

not simply epenthesis. Remarkably, it is triggered by the phonological quality of non-adjacent morphological material: the change of stops to nasals or the insertion of nasals is conditioned by the availability of nasals in the morphology that attaches to the stem. The suffixes containing nasals have to attach directly to the complex stem in order to trigger the insertion of nasals. Compare the examples in (44). In (44a) and (44b), the sequence /pt/ becomes [mn], and the following /h/ is realized as the aspiration of [n]. In (44c), the inflection does not immediately contain a nasal, and thus the phonological material of the stem remains as it is. It gets resyllabified, however, and the /h/ is realized as aspiration of the preceding consonant. Example (45), with the verb *le?nemma* ‘let go, drop’ illustrates the insertion of /n/ when a CV-stem (or CV?) and a vowel-initial stem are adjacent in complex predication. The same condition as in (44) can be observed. Only nasal material in the suffix string licenses the insertion of /n/ between the two verbal stems.

- (44) a. *lem.nhaŋ.ma*
 /lept-haks-ma/
 throw-V2.SEND-INF
 ‘to throw away/out’
 b. *lem.nhaŋ.nen?*
 /lept-haks-nen/
 throw-V2.SEND-1>2
 ‘Shall I throw you out?’
 c. *lep.thak.suŋ.na*
 /lept-haks-u-ŋ=na/
 throw-V2.SEND-3.P[PST]-1SG.A=NMLZ.SG
 ‘I threw her/him out.’
- (45) a. *le?nen.saŋ*
 /le?-end-saŋ/
 drop-V2.INSERT-SIM
 ‘stretching down’
 b. *u.laŋ* *le?en.du.ci.ya*
 /u-laŋ le?-end-a-u-ci=ha/
 3SG.POSS-leg drop-V2.INSERT-PST-3.P-NSG.P=NMLZ.NSG

‘It (the aeroplane) lowered its landing gear.’

Table 3.18: The insertion of nasals in complex predication

CITATION FORMS	STEMS
<i>hu.nhaŋ.ma</i> ‘burn down’	/huʔ/ + /haks/
<i>lem.nhaŋ.ma</i> ‘throw away/out’	/lept/ + /haks/
<i>khu.nhaŋ.ma</i> ‘rescue’	/khus/ + /haks/
<i>iŋ.nhaŋ.ma</i> ‘chase off’	/ikt/ + /haks/
<i>pheʔ.na.ma</i> ‘drop at’	/phes/ + /a/
<i>et.na.ma</i> ‘enroll, install somewhere (and come back)’	/et/ + /a/
<i>tik.na.ma</i> ‘take along’	/tikt/ + /a/
<i>tiʔ.na.ma</i> ‘deliver, bring (and come back)’	/tis/ + /a/
<i>yuk.na.ma</i> ‘put for s.b. and leave’	/yuks/ + /a/
<i>leʔ.nem.ma</i> ‘drop’	/leʔ/ + /end/
<i>hak.nem.ma</i> ‘send down’	/hakt/ + /end/
<i>aʔ.nem.ma</i> ‘wrestle down’	/a/ + /end/
<i>ak.nem.ma</i> ‘kick down’	/ak/ + /end/
<i>leʔ.nem.ma</i> ‘drop’	/leʔ/ + /end/
<i>lep.nem.ma</i> ‘throw down’	/lept/ + /end/

The insertion of /n/ can affect the coda of the first stem, too. Stems ending in /s/ may change to CV-ʔ when followed by a vowel-initial stem, as in *tiʔnama* ‘deliver’ (/tis + a/). This again suggests a sequence of processes, i.e., the insertion of /n/, followed by the change of /s/ to [ʔ]. It is not clear, however, why these citation forms do not simply resyllabify, e.g., to [tisama] instead of [tiʔnama], because this resyllabification is exactly what happens in the corresponding inflected forms. Apparently, speakers prefer to keep morpheme boundaries and syllable boundaries congruent in citation forms. Note that V2s starting in /h/ behave differently from V2s starting in a vowel, because a complex predicate consisting of /khus/ + /haks/ does not become [khuʔ.nhaŋ.ma] but *khu.nhaŋ.ma*.

Table ?? summarizes the processes of the preceding two sections, with examples for each process. To sum up, the insertion of nasals and the transformation of obstruents to nasals are employed to avoid marked structures such as adjacent vowels, adjacent obstruents, and impossible syllable codas, while also maintaining the identity of morpheme boundaries and syllable boundaries. This stands in contrast to inflected forms, where resyllabification is unproblematic.

Table 3.19: Repair operations in complex predicates involving nasals

OPERATION	CITATION FORM	V.LEX + V2
/C _[1] +C/ → N _[1] .C	<i>hom.kheʔ.ma</i> ‘get damaged’	/hop/ + /kheʔ/
/C _[1] C _[2] +V/ → C _[1] .nV	<i>mak.ni.ma</i> ‘surprise’	/maks/ + /i/
/C _[1] C _[2] +hV/ → N _[1] .nhV	<i>lem.nhaŋ.ma</i> ‘throw away/out’	/lept/ + /haks/
/s+hV/ → .nhV	<i>khu.nhaŋ.ma</i> ‘rescue’	/khus/ + /haks/
/s+V/ → ʔ.nV	<i>maʔ.ni.ma</i> ‘lose’	/mas/ + /i/
/V+V/ → Vʔ.nV	<i>aʔ.nem.ma</i> ‘wrestle down’	/a/ + /end/

3.5.8 Nasal copying

In the verbal inflection of Kiranti languages, nasal morphemes can be realized up to three times in the suffix string, a process that was termed ‘affix copying’ or ‘nasal copying’, e.g. in **Driem1987A-grammar**; **Doornenbal2009A-grammar**; **Ebert2003Kiranti**; **Bickel2003Belhare** Alternative analyses have been proposed to explain this process: recursive inflection in **Bickeletal2007Free** and radically underspecified segments in **Zimmermann2012_Affix**

Yakkha nasal copying is illustrated by (46). Suffixes that consist of nasals or that contain nasals occur more than once under certain conditions, and without any semantic consequences. There are no contrasting forms that lack the copied suffixes. It is morphologically most economical to assume regressive copying, with the last nasal suffix serving as base. A comparison of the inflected forms in (46) below supports this reasoning, because the slots after the suffixes *-meʔ* and *-u* are filled with

varying material.²⁵ What is remarkable about the nasal copying is that the value of the underspecified nasal is determined by non-adjacent segments.

- (46) a. *piŋ.ciŋ.ha*
 /piʔ-a-u-N-ci-ŋ=ha/
 give-PST-3.P-[copy]-3NSG.P-1sg.A=NMLZ.NSG
 ‘I gave it to them.’
 b. *tun.dum.cim.ŋha*
 /tund-a-u-N-ci-m-ŋ=ha/
 understand-PST-3.P-[copy]-3NSG.P-1pl.A-EXCL=NMLZ.NSG
 ‘We understand them.’
 c. *ndum.men.cun.ci.ga.nha*
 /n-tund-meʔ-N-ci-u-N-ci-ga-n=ha/
 NEG-Σ-NPST-[copy]-DU.A-3.P-[copy]-3NSG.P-2.A-NEG=NMLZ.NSG
 ‘You (dual) do not understand them.’

The motivation for this copying process might be a phonological repair operation to yield closed syllables.²⁶ Repair operations involving nasals would not be uncommon for Yakkha, as I have pointed out in §??. An obvious shortcoming of this explanation is that nasals are not copied to all syllables that one would expect in light of a purely phonological condition (compare (47a) and (47b)).

- (47) a. *ŋ-khy-a-ma-ga-n=na* (not
 NEG-go-PST-PRF-2-NEG=NMLZ.SG
 **ŋkhyanmanganna*)

²⁵ Note that the glosses ‘1sg.A’ and ‘EXCL’ refer to the same morpheme, if the structure of the whole paradigm is taken into account. It is defined by the property [non-inclusive]. This collapse of markers is also found in the intransitive forms of the Belhare verbal inflection (Bickel1995In-the-vestibule). For the sake of the readability of the glosses, the morphological analysis as well as the alignment patterns of particular morphemes are kept out of the glosses as far as possible.

²⁶ Cf. Schikowski2012_Morphology for the same explanation on Chintang suffix copying, although on p. 25 he points out that this explanation is not watertight, since some copying processes may even create open syllables.

- ‘You have not come.’
- b. *ŋ-khy-a-ma-n-ci-ga-n=ha*
 NEG-go-PST-PRF-[copy]-DU-2-neg=NMLZ.NSG
 ‘You (dual) have not come.’

An alternative analysis has been proposed by Zimmermann2012_Affix resulting from a comparison of several Kiranti languages. In her approach, the copying is a morpheme-specific process, happening only in the vicinity of certain suffixes. In line with her observations, all instances of copied nasals in Yakkha directly precede the suffix *-ci* (with the two morphological values ‘dual’ and ‘3NSG.P’, see the paradigm tables in §??). Hence, it is the suffix *-ci* that licenses the nasal copying in Yakkha. The process as such and the phonological content of the copies are morphologically informed; they are based upon the presence of certain morphological markers. In the absence of *-ci* nothing gets copied, and the same holds for inflectional forms in which no nasals are available to serve as base. Hence, nasal copying is not just the blind fulfillment of a phonological constraint, as epenthesizing any nasal material would be. On the other hand, since no semantic content is added by the nasal copies, the operation is not purely morphological either, but located at the boundary between phonology and morphology.

Another observation made is that the nasal suffixes compete about the choice which suffix will serve as base for the copying. If we compare (48a) and (48b), we can see that here, the preferred choice is /n/, instantiated by the negation marker, although the closest available base in (48b) would be the velar nasal from the suffix *-ŋ*. This shows that the choice is not determined by the linear succession of the available nasals. The negation is the only morphological contrast between the two verb forms, and the nasal that is copied changes from /ŋ/ to /n/, compared to (48a). In (48c), there is a competition between /n/ and /m/ as bases, which is won by /m/. This selection principle holds throughout the inflectional paradigm, so that the hierarchy for the choice of the base must be /m/ > /n/ > /ŋ/.

(48) a.

tum.meŋ.cuŋ.ci.ŋha

/tund-meʔ-N-ci-u-N-ci-ŋ=ha/

understand-NPST-[copy]-DU.A-3.P-[copy]-3NSG.P-excl=NMLZ.NSG

‘We (dual, excl.) understand them.’

b.

ndum.men.cun.ci.ŋa.nha

/n-tund-meʔ-N-ci-u-N-ci-ŋ(a)-n=ha/

NEG-Σ-NPST-[copy]-DU.A-3.P-[copy]-3NSG.P-EXCL-neg=NMLZ.NSG

‘We (dual, excl.) do not understand them.’

c.

ndun.dwam.cim.ŋa.nha

/n-tund-wa-u-N-ci-m-ŋ(a)-n=ha/

NEG-understand-NPST-3.P-[copy]-3NSG.P-1pl.A-EXCL-NEG=NMLZ.NSG

‘We (plural) do not understand them.’

4 Pronouns, demonstratives, quantifiers, numerals, interrogatives

This chapter describes the elements that can be found in the noun phrase, modifying or replacing a head noun. It is structured as follows: §?? deals with the personal pronouns, §?? discusses the possessive pronouns, and §?? the demonstratives. Section ?? shows how indefinite reference is expressed, §?? deals with numerals and other quantifying elements. Section ?? then focusses on interrogative forms, including non-nominal interrogatives.

4.1 Personal pronouns

Yakkha personal pronouns are used to refer to persons, typically to participants whose reference has already been established in discourse. They can take the structural position of a noun phrase (of any participant role) or they can function as heads of noun phrases, although the possibilities to be modified are restricted; relative clauses and demonstratives are not possible, for instance. Possible modifiers are quantifiers and numerals, but they follow the pronominal head, in contrast to noun phrases with nominal heads, which are mostly head-final. Pronouns, like noun phrases in general, are not obligatory, and they are frequently dropped in Yakkha.

The pronouns distinguish person and number. Clusivity, which is found in possessive pronouns, possessive prefixes and in the verbal inflection, does not play a role in the personal pronouns (compare (1a) and (1b)). An overview of the personal pronouns is provided together with the possessive pronouns in Table ?? below. The first and second person

pronouns distinguish singular, dual and plural number. The morpheme *-ci* conveys a dual meaning in the first and second person pronouns, as opposed to *-ni* for plural. In the third person, *-ci* simply has a nonsingular meaning.¹

- (1) a. *kaniŋ khe-i-ŋ=a*
 1PL go[PST]-1PL-EXCL=NMLZ.NSG
 ‘We (without you) went.’
 b. *kaniŋ khe-i=ha*
 1PL go[PST]-1PL=NMLZ.NSG
 ‘We (all) went.’

4.2 Possessive pronouns and nominal possessive inflection

4.2.1 Possessive pronouns

The possessive pronouns modify a head noun, indicating the possessor of the thing that is referred to by the noun (see (2a)). Since the head noun can be omitted when its reference has been established already, the possessive pronoun can also be the sole element in a phrase (see (2b)).

The possessive pronouns resemble the personal pronouns slightly, but they are sufficiently different and irregular so that they establish a separate paradigm. Except for the third person nonsingular form, the roots all look slightly different from the corresponding personal pronouns. They all host the genitive enclitic *=ga*, though. The possessive pronouns distinguish number and person, including clusivity, a category that is absent from the personal pronoun paradigm. The inclusive forms have no parallel in the personal pronouns. Table ?? provides an overview of personal and possessive pronouns and possessive prefixes. The capital /N/ stands for an unspecified nasal that assimilates to the following consonant in place of articulation.

¹ Note that in contrast to the pronominal paradigm, the verbal inflection distinguishes dual number also in the third person (cf. §??).

4.2 Possessive pronouns and nominal possessive inflection

- (2) a. *ak=ka* *kucuma* *sy-a-ma=na*
 1SG.POSS=GEN dog die[3SG]-PST-PRF=NMLZ.SG
 ‘My dog has died.’
- b. *ak=ka=ca* *sy-a-ma=na*
 1SG.POSS=GEN=ADD die[3SG]-PST-PRF=NMLZ.SG
 ‘Mine has died, too.’

Table 4.1: Personal and possessive pronouns, possessive inflection

	PERSONAL PRONOUN	POSSESSIVE PRONOUN	POSSESSIVE PREFIX
1SG	<i>ka</i>	<i>akka</i>	<i>a-</i>
1DU.EXCL	<i>kanciŋ</i>	<i>anciŋga</i>	<i>anciŋ-</i>
1PL.EXCL	<i>kaniŋ</i>	<i>aniŋga</i>	<i>aniŋ-</i>
1DU.INCL	<i>kanciŋ</i>	<i>enciŋga</i>	<i>enciŋ-</i>
1PL.INCL	<i>kaniŋ</i>	<i>eŋga</i>	<i>eN-</i>
2SG	<i>nda</i>	<i>ŋga</i>	<i>N-</i>
2DU	<i>njiŋda</i>	<i>njiŋga</i>	<i>njiŋ-</i>
2PL	<i>nniŋda</i>	<i>nniŋga</i>	<i>nniŋ-</i>
3SG	<i>uŋ</i>	<i>ukka</i>	<i>u- ~ o-</i>
3NSG	<i>uŋci</i>	<i>uŋciga</i>	<i>uŋci-</i>

4.2.2 Possessive prefixes

Alternatively to using possessive pronouns, relationships of possession can also be expressed by attaching a possessive prefix to the head noun, that refers to the possessee. The prefixes index the number and person of the possessor. Their form is similar to the possessive pronouns, which suggests that they have developed out of them. The nasals in the 1PL.INCL prefix *eN-* and in the 2SG prefix *N-* assimilate in place of articulation to the first consonant of their nominal host (see (3)). The third person singular prefix *u-* has the allomorph *o-* before stems containing /e/ or /o/. The possesseees can also be nouns referring to sensations, as in (3a).

The difference between using a pronoun or a prefix lies in the information structure. If the possessive relationship is focussed on, the

pronoun has to be used.

- (3) a. *n-yupma*
2SG.POSS-sleepiness
'your sleepiness'
b. *m-ba*
2SG.POSS-father
'your father'
c. *eŋ-gamnibak*
1PL.INCL.POSS-friend
'our friend'

Possessive prefixes only attach to nouns, and thus, they are affixes, not clitics. In co-compounds (see (4a)), and if two nouns are conjoined in a noun phrase (see (4b)), both nouns host the possessive prefix.²

- (4) a. *u-ppa* *u-ma=ci=ca*
3SG.POSS-father 3SG.POSS-mother=NSG=ADD
'her parents, too' [01_leg_07.152]
b. *a-ma=nun* *a-na=ŋa*
1SG.POSS-mother=COM 1SG.POSS-sister=ERG
y-yog-a-n-niŋ=bi
NEG-search-SBJV[1.P]-NEG-NEG.PL=IRR
'If my mother and sister had not searched for me, ...'
[42_leg_10.052]

4.2.3 Obligatory possession

Certain nouns nearly always appear with possessive prefixes, even when no clear possessor has been mentioned in the preceding discourse. They can hardly be expressed without belonging to another entity or person. The semantic domains which are relevant for obligatory possession are consanguineal kinship, spatial relations (relational nouns), body parts and other part-whole relations that are not body parts in the strict sense, such as *otheklup* 'half' or *ochon* 'splinter'. So far, 118 obligatorily pos-

² Admittedly, all examples of co-compounds or coordinated nouns with possessive marking in the current data set are from the domain of kinship terms.

sessed nouns could be found, which makes up roughly 9% of the nominal lexicon.³ Some of the obligatorily possessed nouns are listed in Table ???. Since obligatory possession is also found in the expression of spatial relations, several adverbs and relational nouns originate in obligatorily possessed nouns (cf. §??).

With kinship terms, the first person singular possessive prefix is the default option, e.g., in the citation forms in elicitation, in general statements and in vocatives (as using names to address people is considered impolite). There are some lexicalized terms like *a-mum* ‘grandmother’, *a-pum* ‘grandfather’, *a-na* ‘elder sister’, characterized by a shift of stress to the first syllable. Recall that prefixes generally do not belong to the domain to which stress is assigned. In words like *a.paŋ* ‘my house’, the domain of stress excludes the prefix, but several monosyllabic kin terms clearly have the stress on the first syllable: *‘a.mum*, *‘a.pum*, *‘a.na*, *‘a.ni*. Even though the stress does not treat the prefixes like prefixes any more, the words are still transparent, as ‘his grandmother’ is *u.‘mum*, not **u.‘a.mum*.

Terms for non-consanguineal family relations like *namba* ‘father-in-law’ or *taŋme* ‘daughter-in-law’ do not fall within the domain of obligatory possession (see example (5a)).⁴ This does not mean that possessive prefixes are prohibited, they are just less frequent. The difference is nicely illustrated in (5b), from a wedding description that contains many kinship terms.

- (5) a. *tabhaŋ* *he?ne* *tas-wa-ga=na*
 male_in-law where arrive-NPST-2=NMLZ.SG
 ‘Where will (your) husband arrive?’
 b. *nhaja* *jammai* *jammai* *jammai*
 and_then all all all

³ In Bickel et al. 2005, *Obligatory* on obligatorily possessed nouns, this phenomenon is defined as “words for which an inflectional category of possession is obligatorily present”. In the current Yakkha data at least some exceptions can be found, so that I conclude that obligatory possession is rather a gradual phenomenon in Yakkha. More data would be necessary in order to explain apparent exceptions and thus to paint a clearer picture of obligatorily possessed nouns in Yakkha.

⁴ I thank Ram Kumar Linkha for pointing this out to me.

Table 4.3: Some obligatorily possessed nouns

CONSANGUINEAL KINSHIP	
<i>acya</i>	‘child’
<i>aphu</i>	‘elder brother’
<i>ana</i>	‘elder sister’
<i>aphaŋ</i>	‘father’s younger brother’
<i>akoŋma</i>	‘mother’s younger sister’
SPATIAL AND TEMPORAL RELATIONS	
<i>ucumphak</i>	‘day after tomorrow’
<i>ulum</i>	‘middle, center’ (relational noun)
<i>oŋemma</i>	‘plains’
<i>uyum</i>	‘side’ (relational noun)
<i>okomphak</i>	‘third day after today’
BODY PARTS	
<i>unabhak</i>	‘ear’
<i>umik</i>	‘eye’
<i>unamcyəŋ</i>	‘cheek’
<i>unacik</i>	‘face’
<i>utamphwak</i>	‘hair’
<i>umuk</i>	‘hand’
<i>uŋəŋ</i>	‘horn’
<i>ulaŋ</i>	‘leg’
<i>uya</i>	‘mouth, opening’
<i>ophok</i>	‘stomach’
<i>osenkhwak</i>	‘bone’
<i>uŋiŋ</i>	‘thorn, fishbone’
PART-WHOLE RELATIONS	
<i>opoŋgalik</i>	‘bud’
<i>uchuk</i>	‘corner’
<i>upusum</i>	‘crust’
<i>uyin</i>	‘egg’
<i>otheklup</i>	‘half’
<i>okhop</i>	‘husk of rice’
<i>uhup</i>	‘knot’
<i>ukhuppa</i>	‘lid, cover’
<i>ophetrak</i>	‘petal’
<i>ochon</i>	‘thorn, splinter’
<i>oyok</i>	‘place’
<i>uwha</i>	‘wound’

lokondi, [...] *u-chim*
 companion_of_bride [...] 3SG.POSS-FyBW
u-pharɨ=ci
 3SG.POSS-FyB=NSG
 ‘and then, they all, the bride’s companions, her paternal
 aunts and uncles ...’ [25_tra_01.091]

While the default option for kin terms is the first person prefix, for the other obligatorily possessed nouns it is the third person singular, as for instance in *u-tin* ‘thorn’. We find some lexicalized instances here as well, for instance *usa* ‘fruit’, stressed on the first syllable and lexicalized from the more general noun *sa*, translating as ‘flesh, meat’ and ‘fruit flesh’. Another instance is *uwa* ‘nectar, honey, (any) liquid’, also stressed on the first syllable, with the original meaning ‘water’ or, more generally, ‘liquid’.

The obligatory possessive marking is also known from other Kiranti languages. Camling also has obligatory possessive marking on inherently relational nouns (Ebert1997Camling). Similarly, Doornenbal2009A-grammar lists classes of nouns that necessarily occur with possessive marking. In her grammar of Thulung, Lahaussos2002Thulung mentions that an otherwise rare combination of possessive prefix and genitive marking is frequently found with inalienably possessed nouns such as nouns from the domains of kinship and body parts.

4.3 Demonstratives

The functional core of demonstratives is deixis. Demonstratives (just like pronouns and temporal adverbs such as ‘tomorrow’) are deictic; their reference depends on a center that is established in the particular utterance context and that may thus change with that particular utterance context (Buehler1934_Sprachtheorie; Fillmore1997_Deixis). The point of reference is typically, but not necessarily, the speaker.

There are two sets of demonstratives in Yakkha, one set based on proximity and distance to the deictic center (spatial as well as anaphoric, see §??) and one set based on the inclination of the landscape, called *geomorphic* in Bickel1997Spatial). The latter are treated separately in §??

on the topography-based orientation system. The roots of the former set are pronominal in their nature, but they can become adverbial via derivations (see §??).

4.3.1 Proximal, distal and anaphoric deixis

Table ?? shows the forms expressing the three-fold distinction between proximal, distal and anaphoric demonstratives. The proximal forms are used to refer to objects or people that are close to the speaker and can be touched or pointed at, while the distal forms are used for objects or people further away and also for referents that are not present in the speech situation. Narratives mostly use the distal forms, except in direct quotations. The anaphoric demonstratives are used to take up reference to some participant that had already been activated at a previous time in discourse, best translated as ‘that very (person/thing/event)’. The members of this set of demonstratives are also found in correlative clauses (see §??). Demonstratives can be used adnominally (i.e., modifying a head noun) and pronominally (i.e. replacing a noun phrase) in Yakkha. Furthermore, demonstratives may replace personal pronouns in the third person, as the use of personal pronouns is considered somewhat rude.

Table 4.4: Proximal, distal and anaphoric demonstratives

	PROXIMAL	DISTAL	ANAPHORIC
SG	<i>na</i>	<i>nna</i>	<i>honna</i>
NSG/ NON-COUNT	<i>kha</i>	<i>ŋkha(ci) ~ nnakha(ci)</i>	<i>hoŋkha(ci)</i>

Let us first take a look at the proximal-distal distinction. In example (6), the demonstratives are used in attributive function. The number distinction is encoded by the base forms for proximal deixis *na* (singular) and *kha* (nonsingular and non-countable reference).⁵ Distal deixis

⁵ The distinction between singular on the one hand and nonsingular/non-countable on the other hand is fundamental and robust in Yakkha, found not only in the demonstratives but also in nominalizations and in verbal agreement.

is expressed by adding either a prefix *nna* or just a homorganic nasal to these roots (not segmented in the glosses).⁶ No semantic difference between *nnakha* and *ηkha* could be determined, and the latter seems like a contracted form of the former. In terms of stress assignment, these demonstratives may cliticize phonologically when they are used attributively, but they are generally able to carry their own stress. They naturally carry stress when they occur on their own, e.g. *khaci* ‘these’.

- (6) a. *na babu*
 this boy
 ‘this boy’
 b. *nna babu*
 that boy
 ‘that boy’
 c. *kha babu=ci*
 these boy=NSG
 ‘these boys’
 d. *ηkha babu=ci*
 those boy=NSG
 ‘those boys’
 e. *kha kham*
 this mud
 ‘this mud/soil’
 f. *ηkha kham*
 that mud
 ‘that mud/soil’

As example (6) shows, all demonstratives can appear as nominal modifiers (see also (7)). The non-countable reference of *kha* can be illustrated by the difference between *tonba* ‘beer served in a small barrel and drunken with a pipe’ and *cuwa* ‘beer’. While the first has countable reference, the latter is treated as a substance and hence has non-countable reference. The demonstrative *kha* may thus refer to nonsin-

⁶ In Belhare (Bickel2003Belhare), the lexeme corresponding to *nna* is *ina*. The same sound correspondence (between nasal prefix and prefix *i-*) is found between the Tumok and the Kharang dialects of Yakkha.

gular instances of count nouns (see (7b)) or to mass nouns (see (7c)). This distinction of number and countability is also reflected in the sentence-final nominalizers in these examples, which are etymologically related to the demonstratives (discussed at length in §??).

- (7) a. *na tonba imin et-u-ga=na?*
 this beer_in_barrel how like-3.P[PST]-2=NMLZ.SG
 ‘How do you like this tongba?’
 b. *kha tonba=ci khumdu=ha=ci*
 these beer_in_barrel=NSG tasty=NMLZ.NSG=NSG
 ‘These tongbas are tasty.’
 c. *kha cuwa(*=ci) khumdu=ha*
 these beer(*=NSG) tasty=NMLZ.NC
 ‘This beer (beer of this house/area) is tasty.’

The demonstratives may also head noun phrases, hosting the phrasal morphology and triggering agreement (see (8)). They are more restricted than nominal heads of noun phrases, as they cannot take adnominal modifiers.

- (8) a. *kha=ci ucun=ha=c=em, nkha=ci*
 these=NSG nice=NMLZ.NSG=NSG=ALT those=NSG
ucun=ha=c=em?
 nice=NMLZ.NSG=NSG=ALT
 ‘Are these better, or those?’
 b. *na=go ucun=na*
 this=TOP nice=NMLZ.SG
 ‘This one is nice.’

The anaphoric demonstratives identify referents that have already been activated in discourse, and are taken up again, as in (9), from a pear story. The speaker introduces her narrative with the fact that she has seen a film. Then, the listener makes a joke, distracting away from the film (not included in the example). The speaker re-introduces the topic with *honna*.

- (9) a. *ha, imin ka-ma=ha? ka khem*
 yes, how say-INF[DEONT]=NMLZ.NSG 1SG before
eko philm so-η, men=na=i?
 one film watch[3.P;PST]-1SG.A NEG.COP=NMLZ.SG=Q
 ‘Yes, how to start? I saw a film before, right?’
 [34_pea_04.005]
- b. *honna=be=jhen, eko jangal=we eko yapmi*
 that_very=LOC=TOP one jungle=LOC one person
khy-a-masa, men=na=i? paghyam.
 go[3SG]-PST-PST.PRF NEG.COP=NMLZ.SG=Q old_man
 ‘In that (film), a man had gone into a jungle, right? An old
 man.’
 [34_pea_04.011]

In (10), a written narrative, the protagonist wants to go fishing to surprise his sick father. What happens is that he loses the fishing net in the strong currents of the river. The following is said about the net after narrating how he lost it:

- (10) *honna eko=se jal wa-ya-masa=na*
 that_very one=RESTR net exist[3SG]-PST-PST.PRF=NMLZ.SG
 ‘There had been only that very net.’
 [01_leg_07.214]

Human reference is possible with *honna* as well, exemplified by (11).

- (11) *nnakha?la cok-saη honna yapmi bhirik=phaη*
 like_that do-SIM that_very person cliff=ABL
lond-uks-u
 take_out-PRF-3.P[PST]
 ‘In this way, he rescued that (afore-mentioned) man from the
 cliff.’
 [01_leg_07.330]

In (12), also a written narrative, the referent taken up from the previous clause is a cradle.

- (12) a. *uη=ηa hoηma=ηa eko mina yon*
 3SG=ERG river=INS one small cradle

- yaŋ-khe?-ma-si-me?=na*
 flush-V2.CARRY.OFF-INF-AUX.PROG-NPST=NMLZ.SG
nis-uks-u
 see-PRF-3.P[PST]
 ‘She saw a little cradle being carried off by the river.’
 [01_leg_07.288]
- b. *nhaŋ* *uŋ=ŋa* *hattapatta* *honna* *yoŋ*
 and_then 3SG=ERG hastily that_very cradle
lab-uks-u
 grab-PRF-3.P[PST]
 ‘And hastily she grabbed that cradle.’ [01_leg_07.289]

The singular form *na* could be etymologically related to a topic particle of the same form, as it is still found in Belhare or Puma, for instance (Bickel2003Belhare; Bickeletal2009Puma). Furthermore, the demonstratives *na* and *kha* have developed into the nominalizers *=na* and *=ha* which show exactly the same distribution with regard to number and the count/mass distinction as the demonstratives (cf. §??). On a final note, clause-initial coordinators like *nhaŋ*, *nnhaŋ*, *khon* and *ŋkhon* (all paraphrasable with ‘and then’ or ‘afterwards’) are demonstratives with ablative marking historically.

4.3.2 Demonstrative adverbs and quantifiers

The proximal-distal-anaphoric distinction is also present in a set of demonstrative adverbs and quantifiers, as summarized in Table ?? . In (13) we can see some examples of anaphoric demonstrative adverbs based on the root *hon*. The sentence in (13a) is uttered at the end of a narrative, and the adverbs refer to the content and amount of the events just told.⁷ In (13b), *honkha?niŋ* refers to the time at which the events took place (specified in a previous sentence), and in (13c), *honnhe* refers to the place just mentioned in the conversation.

⁷ Quantifying expressions (both for amount and size) are the topic of §?? below.

- (13) a. *liŋkha=ci=ga* *lagi*, *hoŋkha?la=oŋ*,
 Linkha_clan_member=NSG=GEN for like_that=SEQ
hoŋkhiŋ=se
 that_much=RESTR
 ‘For the Linkhas, like that, that much only.’ [11_nrr_01.042]
- b. *hoŋkha?niŋ* *ten=be?na*
 that_very_time village=LOC=NMLZ.SG
yalumma *a-mum=ŋa* *so-saŋ*
 talkative_granny 1SG.POSS-grandmother=ERG look-SIM
ka-ya:
 say[3SG]-PST
 ‘At that time, a talkative old lady, watching, it said: ...’
 [41_leg_09.041]
- c. *honnhe=maŋ* *khe-me-ŋ=na*
 right_there=EMPH go-NPST-1SG=NMLZ.SG
 ‘I will go right there.’ (in a talk about Mamling village, a new person shows up and states that she will go right to that village)

Table 4.5: Demonstrative adverbs and quantifiers

	PROXIMAL	DISTAL	ANAPHORIC
LOCATION	<i>nhe</i> ‘here’	<i>nnhe</i> ‘there’	<i>honnhe</i> ‘where mentioned before’
TIME	<i>kha?niŋ</i> ‘this time, now’	<i>ŋkha?niŋ ~ nnakha?niŋ</i> ‘that time, then’	<i>hoŋkha?niŋ</i> ‘right at that time’
MANNER	<i>kha?la</i> ‘like this’	<i>ŋkha?la ~ nnakha?la</i> ‘like that’	<i>hoŋkha?la</i> ‘like mentioned before’
AMOUNT/ SIZE/ DEGREE	<i>khiŋ</i> ‘this much’/ ‘this big’	<i>ŋkhiŋ ~ nnakhiŋ</i> ‘that much’/ ‘that big’	<i>hoŋkhiŋ</i> ‘as much as mentioned before’/ ‘as big as mentioned before’

4.4 Indefinite reference

Yakkha does not have a morphologically distinct class of indefinite pronouns; all pronouns and demonstratives are definite. There are, however, several strategies to convey indefinite reference, including the use of simple nouns. Occasionally, the numeral *eko* ‘one’ is also used for this purpose. In example (14a), *eko* refers to an object in a future and hence irrealis statement; in (14b), *eko* refers to a specific (i.e., known to the speakers), but still indefinite person (i.e., not determined in a way that the hearer can identify the referent).

- (14) a. *uŋ mit-a: haku eko paŋ cok-ma*
 3SG think[3SG]-PST: now one house make-INF
ta-ya=na
 come[3SG]-PST=NMLZ.SG
 ‘He thought: Now the time has come to build a house.’
 [27_nrr_06.006]
- b. *aniŋ=ga eko mamu*
 1PL.EXCL.POSS=GEN one girl
mas-a-by-a-ma=na
 get_lost[3SG]-PST-V2.GIVE-PST=NMLZ.SG
 ‘One of our girls got lost.’
 [22_nrr_05.076]

Interrogatives can also function as indefinite pronouns, particularly in contexts where the referent is unknown to the speaker, as in (15). Interrogatives as indefinite pronouns may head noun phrases and can be modified (see (15a)); they may also modify nouns themselves (see (15b)). Using interrogatives for indefinite reference is a very common strategy cross-linguistically, which can be explained by the functional similarity of the two. Both express an information gap and vagueness at the utterance level (Haspelmath1997_Indefinite).

- (15) a. *uŋci yuncamakekek i ŋ-ga-ya-masa*
 3NSG funny what 3PL-say-PST-PST.PRF
 ‘They had said something funny.’ [41_leg_09.029]
- b. *nhana desan-masan n-da-me*
 and_then malicious_ghost 3PL-come-NPST

i=ha

what=NMLZ.NSG

‘And then, some scary ghosts will come.’ [28_cvs_04.266]

As (16) shows, information that is known to the speaker, but that she does not want to disclose, is also covered by the interrogative-indefinite polysemy.

- (16) *khy-a-η=na=le, pheri kha?la=maη=ba,*
 go-PST-1SG=NMLZ.SG=CTR again like_this=EMPH=EMPH
sala i=ha i=ha ta-me
 talk what=NMLZ.NC what=NMLZ.NC come[3SG]-NPST
 ‘I just went, again, just like this, one talks about a little bit of
 this, a little bit of that.’ (the speaker explains why she had gone,
 i.e., to talk, without specifying what they talked about)
 [28_cvs_04.319]

Exhaustive reference, i.e., including all imaginable referents in a given context, is expressed by attaching the additive focus particle *=ca* to an interrogative pronoun (see (17)). This works with affirmative and with negated statements, in the latter case with the effect of exhaustive negation (see (17c)).

- (17) a. *i=ha camyona=ca a-sap*
 what=NMLZ.NC food=ADD 1SG.POSS-[STEM]
thakt-wa-η=ha
 like-NPST[3.P]-1SG.A=NMLZ.NSG
 ‘I like any (kind of) food.’
 b. *eη=ga niη=be uηci i=ha*
 1PL.INCL.POSS=GEN name=LOC 3NSG what=NMLZ.NC
cok-ma=ca tayar n-leη-me
 do-INF=ADD ready 3PL-become-NPST
 ‘They will be ready to do anything in our name.’
 [01_leg_07.084]
 c. *ηkha?la bhon lop ka i=ha=ca*
 like_that COND now 1SG what=NMLZ.NC=ADD

n-nakt-a-ŋa-n,
 NEG-ask_for-IMP-1SG.P-NEG
 ‘If it is like that, do not ask me for anything right now.’
 [27_nrr_06.025]

Occasionally, the interrogative pronoun can also be doubled, often in combination with markers of focus or emphasis (see (18)).

- (18) a. *chippakekek=na i=na=i*
 disgusting=NMLZ.SG what=NMLZ.SG=EMPH
i=na lo?wa=na
 what=NMLZ.SG like=NMLZ.SG
 ‘like some disgusting, undefinable (thing)’ [40_leg_08.054]
- b. *eh, ikhiŋ mam=ha i=ya*
 oh, how_much big=NMLZ.NC what=NMLZ.NC
i=ya=le naŋ-me-c-u=ha
 what=NMLZ.NC=CTR ask-NPST-DU-3.P=NMLZ.NC
baŋniŋgo ha?lo
 TOP EXCLA
 ‘Oh, (we had thought that) they would ask for something big!’
 (instead, they asked for a minor favor) [22_nrr_05.129]

Another strategy to express indefinite reference is to use an interrogative pronoun and to reduplicate the fully inflected verb (see (19)). Additionally, the interrogative phrase may host a topic marker =*ko*, which is not possible in interrogative utterances, since the inherent focus of interrogative phrases rules out topic marking on them. Both strategies help to disambiguate indefinite statements and interrogative utterances.

- (19) a. *a-yaŋ he?ne*
 1SG.POSS-money where
mas-a-by-a=ha
 get_lost[3SG]-PST-V2.GIVE-PST=NMLZ.NC
mas-a-by-a=ha
 get_lost[3SG]-PST-V2.GIVE-PST=NMLZ.NC

- ‘My money got lost somewhere.’
- b. *surke=ŋa isa=ge=ko khus-u-co-ya*
 Surke=ERG who=LOC=TOP steal-3.P-V2.EAT-PST
khus-u-co-ya
 steal-3.P-V2.EAT-PST
 ‘Surke (a dog) stole (food) from someone’s house.’
- c. *na inimma=be a-ppa*
 this market=LOC 1SG.POSS-father
a-ma=ci he?ne
 1SG.POSS-mother=NSG where
m-phaps-a-khy-a
 3PL-entangle-PST-V2.GO-PST
m-phaps-a-khy-a
 3PL-entangle-PST-V2.GO-PST
 ‘My parents got lost somewhere in this market.’⁸
- [01_leg_07.163]

In practice, indefinite reference is often just realized by the omission of overt arguments, since overt personal pronouns are not required for accessible referents, not even for mentioning them for the first time. In (20), the referent talked about is only introduced by the verbal agreement: people talk about someone they saw walking away, without recognizing who it was.

- (20) *churuk un-san khy-a-ma=na. isa=?lo?*
 cigarette drink-SIM go[3SG]-PST-PRF=NMLZ.SG who=EXCLA
 ‘He has gone, smoking a cigarette. But who was it??’

4.5 Quantifiers, numerals and numeral classifiers

4.5.1 Quantification, size and degree

Yakkha has several quantifiers to indicate the amount, size, degree or intensity of the concepts expressed by nouns, adjectives or verbs. They are listed in Table ??, with the word classes with which they combine.

⁸ The word *inimma* is a neologism not widely in use.

The form *maṇpha* ‘much/very’ is special insofar as it may also express the degree of another quantifier, such as in *maṇpha pyak* ‘really much’. The table also includes deictic quantifiers and degree words.

Table 4.6: Quantifiers

YAKKHA	GLOSS	DOMAIN
<i>mi</i>	‘a little’	A
<i>miyaŋ</i>	‘a little’	N, V, A
<i>mimik</i>	‘a little’	N, V
<i>ghak</i>	‘all/whole’	N
<i>tuknuŋ</i>	‘completely’	V, A
<i>pyak</i>	‘much/ many/ very’	N, V, A
<i>maṇpha</i>	‘much/very’	A, <u>QUANT</u>
<i>ibibi</i>	‘very much/many’	N
<i>khiŋ</i>	‘this much/this big’ (deictic)	N, V, A
<i>ŋkhiŋ</i>	‘that much/that big’ (deictic)	N, V, A
<i>hoŋkhiŋ</i>	‘as much/big as stated before’ (deictic)	N

The difference between *mimik* and *miyaŋ* (both: ‘a little’) is subtle. Both can be found with nouns (see (21)) or verbs (see (22)), but *miyaŋ* is the typical choice with nouns, while *mimik* is found more often with verbs. Both words may also appear as proforms heading noun phrases, as (21a) and (21c) show.

- (21) a. *nda=ca miyaŋ=se uŋ-u!*
 2SG=ADD a_little=RESTR drink-3.P[IMP]
 ‘You too, drink, just a little!’
- b. *ka miyaŋ cama py-a-ŋ-eba*
 1SG a_little rice give-IMP-1SG.P-POL.IMP
 ‘Please give me a little rice.’
- c. *mimik, ŋ-khot-a-n bhoŋ=se*
 a_little NEG-be_enough-PST-NEG COND=RESTR
kaniŋ mimik
 1PL[ERG] a_little

in-u-ca-wa-m-η=ha

buy-3.P-V2.EAT-NPST-1PL.A-EXCL=NMLZ.NC

‘A little, only if is not enough we buy a little.’

[28_cvs_04.038]

- (22) a. *kam=ca cok-ma haʔlo, mimik,*
 work=ADD do-INF[DEONT] EXCLA a_little
 ‘One also has to work a little, ...’ [28_cvs_04.326]
- b. *miyaŋ ucun*
 a_little nice
η-get-u-ηa-n=na loppi
 NEG-bring_up-3.P[PST]-EXCL-NEG=NMLZ.SG perhaps
 ‘Maybe I did not recall it (a story) so well.’ (lit. ‘I slightly
 did not recall it nicely, perhaps.’) [11_nrr_01.038]
- c. *miyaŋ taŋkhyan mopmop*
 a_little sky covered
cok-t-a-by-a
 make-BEN-IMP-V2.GIVE-IMP
 ‘Please make the sky a little cloudy.’ [37_nrr_07.100]

Furthermore, *miyaŋ* is also found with adjectives and adverbs (see (23)).

- (23) *hoŋ=bhaŋ miyaŋ yoʔyorok*
 hole=ABL a_little across
 ‘a little further away from the hole’ [04_leg_03.011]

The quantifier *pyak* is used with count and mass nouns, and also with an intensifying function when it is combined with verbs and adverbs/adjectives. It signifies a high amount or degree of whatever is expressed by the head that it modifies. Thus, it can be rendered with English ‘much’, ‘many’ and ‘very’. Examples are provided below in (24) for the nominal domain and in (25) for verbal and adverbial/adjectival uses. In (25a), *pyak* is further emphasized by the deictic degree particle *khiŋ*, yielding the exclamative ‘how much!’.

- (24) a. *pyak sakheʔwa=ci*
 many pigeon=NSG
 ‘many pigeons’ [01_leg_07.013]

- b. *pyak η-geη-me-n*
much NEG-bear_fruit[3SG]-NPST-NEG
‘Not much will ripen.’ [01_leg_07.122]
- c. *pyak yan ub-wa-η,*
much money earn-NPST[3.P]-1SG.A
‘I will earn much money, ...’ [01_leg_07.190]
- (25) a. *ka khiη pyak a-ma=ηa*
1SG this_much much 1SG.POSS-mother=ERG
u-luηma tuη-me-η=na
3SG.POSS-liver pour-NPST-1SG.P=NMLZ.SG
‘How much my mother loves me!’ [01_leg_07.079]
- b. *suku pyak cond-a-sy-a-ma*
Suku much be_happy[3SG]-PST-MDDL-PST-PRF
‘Suku was very happy.’ [01_leg_07.151]
- c. *eko pyak thuηdu=na yapmi*
one very rich=NMLZ.SG person
‘a very rich man’ [04_leg_03.014]

Examples with *ibibi* (referring to an unspecific high quantity) are few; one is shown below in (26).

- (26) *wathan=be ibibi yapmi=ci ta-san*
water_tap=LOC many_many person=NSG come-SIM
wasi-san khe-san n-jok-ma-sy-a
wash-SIM go-SIM 3PL-do-INF-AUX.PROG-PST
‘At the watertap, many, many people kept coming, bathing, going.’
[40_leg_08.049]

The exhaustive quantifier *ghak* ‘all, whole’ can refer to an exhaustive number or amount, as in (27a), or to a complete unit, as in (27b) and (27c). The potential ambiguity is resolved by the verbal number agreement, which has to be plural in the exhaustive reading.

- (27) a. *ghak limbu m-bog-a-ma-ci=hoη,*
all Limbu_person 3PL-get_up-PST-PRF-NSG=SEQ
‘As all the Limbus woke up, ...’ [22_nrr_05.027]

- b. *ghak ce?ya*
 whole matter
 ‘the whole matter’ [01_leg_07.024]
- c. *ghak ten mag-a-khy-a,*
 whole village burn[3SG]-PST-V2.GO-PST
 ‘The whole village burned down.’ [22_nrr_05.026]

The deictic quantifier *khin* has to be interpreted with respect to the utterance context, and it can refer to amount or size. In most cases, its use is accompanied by gestures that indicate the size or the amount of some entity. Occasionally, the nominal comitative can be found attached to *khin* (see (28c)).

- (28) a. *khin tukkhi η-and-u,*
 this_much pain 3PL.A-endure-3.P[PST]
 ‘They endured so much troubles, ...’ [14_nrr_02.07]
- b. *mi=na chun-d-e?=na,*
 small=NMLZ.SG shrink[3SG]-V2.GIVE-NPST=NMLZ.SG
khin leη-d-e?=na,
 this_big become[3SG]-V2.GIVE-NPST=NMLZ.SG
 ‘It shrinks, it becomes so small, ...’ [36_cvs_06.228]
- c. *khin=nun em-ma=niηa lak=nun*
 this_much=COM insert-INF=CTMP salty=COM
leks-a=bi
 become[3SG]-SBJV=IRR
 ‘If one inserted this much, it would become salty.’

In parallel to the demonstratives described in §??, *ηkhin* may express distal reference, i.e., ‘that much’ (compare (29a) and (29b)). In (29b), instead of indicating the size with his own hands, the speaker points to a piece of wood laying nearby. The distal reference is also used in general statements, as in (29c).

- (29) a. *puchak khin=na sa=na!*
 snake this_much=NMLZ.SG COP.PST[3SG]=NMLZ.SG
 ‘The snake was this big!’ (The speaker is showing with own hands how big it was.)

- b. *puchak ηkhiŋ=na sa=na!*
 snake this_much=NMLZ.SG COP.PST[3SG]=NMLZ.SG
 ‘The snake was that big!’ (The speaker is pointing to a piece
 of wood laying nearby.)
- c. *cun=be ηkhiŋ ucun*
 cold=LOC that_much nice
m-phem-me-n=ha
 NEG-bloom[3SG]-NPST-NEG=NMLZ.NSG
 ‘In winter, it does not bloom so nicely.’ (=ha being used be-
 cause of mass reference, blossoms in general, not a count-
 able plurality of blossoms)

Anaphoric deixis is possible as well, using *hoŋkhiŋ*. The sentence in (30) follows a long enumeration of particular things the protagonist had to do, and *hoŋkhiŋ* refers back to them.

- (30) *nhaŋ nam wandik=ŋa lom-me?=niŋa*
 and_then sun next_day=INS come_out[3SG]-NPST=CTMP
hoŋkhiŋ cok-ni-ma p̣arne
 that_much do-COMPL-INF[DEONT] having_to
sa=bu
 COP.PST[3SG]=REP
 ‘And then, at the dawn of the next day, all that work had to be
 finished, people say.’ [11_nrr_01.010]

4.5.2 Numerals and classifiers

4.5.2.1 Cardinal numerals

The inherited Tibeto-Burman numerals have largely gotten lost in Kिरान्ति (Ebert1994The-structure). In Yakkha only the numerals *i* ‘one’, *hiC* ‘two’⁹ and *sum* ‘three’ are known. Another numeral for ‘one’ is found, which is the Nepali loan *eko*. It already replaces the Yakkha numeral *i* in several contexts. In counting, for instance, *eko* prevails in the

⁹ The capital /C/ stands for a plosive. As the numeral does not occur independently, and as it always assimilates to the following consonant, its place of articulation could not be determined.

majority of cases. Some fixed expressions, like *i len* ‘one day’, however, contain the Yakkha form. It is quite likely that the numeral *i* and the interrogative root *i* share a common origin.

Unlike in some Newari varieties,¹⁰ numeral classification does not play a prominent role in Kiranti languages. Yakkha has one numeral classifier *-paŋ* for human reference (cognate, e.g., with Belhare *-baŋ*, Athpare *-paŋ*, Camling *-po*, Bantawa *-pok*, Hayu *-pu*). It is used only with the Yakkha numerals ‘two’ and ‘three’ (see (31)). Nonsingular marking of the head noun is frequent, but optional (discussed in §??). For numerals above ‘three’, borrowed Nepali numerals, as well as the Nepali classifiers *jana* for humans and (*w*)*ota* for things are used (see (32a)). Some words for measuring units or currency may also function as classifiers (see (32b)).

- (31) a. *eko yapmi*
 one person
 ‘one man/person’
 b. *hip-paŋ* *babu(=ci)*
 two-CLF.HUM boy(=NSG)
 ‘two boys’
 c. *sum-baŋ* *mamu(=ci)*
 three-CLF.HUM girl(=NSG)
 ‘three girls’
- (32) a. *bis* *ora* *khibak=ca*
 twenty CLF rope=ADD
 ‘twenty ropes’ [11_nrr_01.012]
 b. *ah, pāc, chasay* *rupiya*
 yes five six_hundred rupee
 ‘five, six hundred rupees’ [28_cvs_04.075]

Since there is no classifier for non-human reference in Yakkha, the non-singular marker *=ci* has undergone reanalysis in order to fill the position of the classifier (see (33)). This is the only instance where non-singular *=ci* may occur inside a noun phrase.

¹⁰ For instance, in Dolakha Newari (Genetti2007_Newari) and the Newari spoken in Dulikhel (own observations).

- (33) a. *hic=ci yaŋ=ci*
 two=NSG coin=NSG
 ‘two coins’ [26_tra_02.032]
- b. *sum=ci ce?ya*
 three=NSG word
 ‘three words’ [36_cvs_06.345]

Numeral expressions may also occur without a head noun; i.e., they can fill the structural position of a noun phrase (see (34)).

- (34) a. *hip-paŋ=se*
 two-CLF.HUM=RESTR
 ‘only two people’ [36_cvs_06.578]
- b. *hip-paŋ=ŋa ni-me-c-u=ha*
 two-CLF.HUM=ERG know-NPST-DU-3.P=NMLZ.NC
 ‘The two of them know it (how to divinate).’
 [22_nrr_05.081]

4.5.2.2 Counting events

Yakkha has a marker *-ma* to individuate and count events, i.e., to express ‘once’, ‘twice’, ‘three times’. It only occurs with the inherited (Tibeto-Burman) Yakkha numerals.

- (35) a. *ka i-ma pukt-a-ŋ=na*
 1SG one-COUNT jump-PST-1SG=NMLZ.SG
 ‘I jumped once.’
- b. *minuma=ŋa hip-ma sum-ma u-muk*
 cat=ERG two-COUNT three-COUNT 3SG-hand
hoŋ=be end-uks-u=ca mima lap-ma
 hole=LOC insert-PRF-3.P=ADD mouse catch-INF
n-yas-uks-u-n
 NEG-be_able-PRF-3.P-NEG
 ‘Although the cat tried to put its paw into the hole two or three times, it could not catch the mouse.’ [04_leg_03.009]

4.6 Interrogative proforms

Yakkha interrogatives are based on the roots *i* and *he?*. Table ?? provides an overview. While *i* may also occur independently, with the meaning ‘what’ (referring to events, see (36)), *he?* always occurs with further morphological material. Some interrogatives are easily analyzable into a base plus case marker, nominalizer or clause linkage marker, but others are not transparent. Interrogatives may also function as indefinite pronouns (see §?? above).

- (36) *i* *leks-a?*
 what happen[3SG]-PST
 ‘What happened?’

Table 4.7: Interrogatives

YAKKHA	GLOSS
<i>i ~ ina ~ iya</i>	‘what’
<i>isa</i>	‘who’
<i>imin</i>	‘how’
<i>ikhin</i>	‘how much’, ‘how many’, ‘how big’
<i>ijan</i>	‘why’
<i>he?na ~ hetna</i>	‘which’ (INT=NMLZ)
<i>he?ne ~ hetne</i>	‘where’ (INT=LOC)
<i>he?nan ~ he?nhan ~ hetnan ~ hetnhan</i>	‘where from’ (INT=ABL)
<i>he?nin ~ hetnin</i>	‘when’ (INT=CTMP)

When the requested bit of information has a nominal nature, the base *i* occurs with the nominalizers *=na* or *=ha ~ =ya* (see §??). For example, food is expected to consist of several different items, and will be requested with the nonsingular/non-countable form *=ha ~ =ya* (see (37a)). Interestingly, these nominalized forms can also occur inside a noun phrase (see (37b)). In this example, *ina* does not request the iden-

tification of one item out of a set, as *he?na* ‘which’ would. It rather implies that nothing is presupposed. The sentence is from a dowry negotiation, and here the speakers imply that there is nothing more to give to the bride. Similarly, when the identity of a person is requested but the speaker has no set of possible answers in mind, *isa* can occur inside a noun phrase (see (37c)). The context of this example was that some people were talking about the newly arrived researcher, and some other people who did not know about this fact (and did not see the researcher sitting around the corner) requested to know whom they were talking about.

- (37) a. *i=ya* *ca-ma*
what=NMLZ.NSG eat-INF
‘What to eat?’
- b. *nani*, *i=na* *yubak?* *n-chimd-uks-u*
child, what=NMLZ.SG property 3PL.A-ask-PRF-3.P
‘“Child, what property?” they asked her.’ [37_nrr_07.006]
- c. *isa* *mamu?*
who girl
‘What girl (are you talking about)?’

The interrogatives *ina/iya* and *isa* may also head noun phrases (without modifiers), host nominal morphology and appear as predicates of interrogative copular clauses (see (38)). When a noun phrase is headed by an interrogative, modifying material is not allowed, except for clauses in which the interrogatives have an indefinite interpretation (discussed above in §??). The quantifying/degree interrogative *ikhin* (derived from the demonstrative base *khiŋ* discussed in §??) may also occur in noun-modifying position (see (39)).

- (38) a. *i=ga* *lagi* *ta-ya-ga=na?*
what=GEN for come-PST-2=NMLZ.SG
‘What did you come for?’
- b. *na* *i=ŋa* *hab-a=na*
this what=INS cry[3SG]-PST=NMLZ.SG
‘What made her cry?/Why does she cry?’ [13_cvs_02.050]

- c. *piccha=be* *isa=ŋa* *ghak*
 child(hood)=LOC who=ERG all
nis-wa=ha?
 know[3A;3.P]-NPST=NMLZ.NSG
 ‘Who knows everything in childhood?’ [40_leg_08.079]
 (a rhetorical question)
- d. *kha yapmi=ci isa=ci?*
 these person=NSG who=NSG
 ‘Who are these people?’
- (39) a. *a-konma=ga biha ikhiŋ sal=be*
 1SG.POSS-MyZ=GEN marriage how_much year=LOC
leks-a=na?
 happen[3SG]-PST=NMLZ.SG
 ‘In which year was your (i.e., my aunt’s) marriage?’
 [06_cvs_01.031]
- b. *ikhiŋ mi?wa*
 how_much tear
hond-end-u-g=ha!
 uncover-V2.INSERT-3.P[PST]-2.A=NMLZ.NSG
 ‘How many tears you have shed!’¹¹ [37_nrr_07.111]

Naturally, the same applies to *he?na* ‘which’ (see (40)); it always requests the identity of some item from a presupposed set.

- (40) a. *he?na des wei-ka=na?*
 which country live[NPST]-2=NMLZ.SG
 ‘In which country do you live?’ [28_cvs_04.080]
- b. *he?na nis-u-ga=na?*
 which see-3.P[PST]-2.A=NMLZ.SG
 ‘Which one did you see?’

The interrogative *ikhiŋ* is furthermore often found in exclamations about size, amount or degree, lacking the interrogative function (see (41) and (39b)).

¹¹ The V2 *-end* indicates transitive motion downwards here.

- (41) a. *lambu ikhiŋ mi=na, ammai*
road how_much small=NMLZ.SG oh_my!
ikhiŋ mi=na lambu lai!
how_much small=NMLZ.SG road EXCLA
‘How narrow the road is, oh my, what a narrow road!’
[36_cvs_06.223]
- b. *nna dewan-dhunga baŋna luŋkhwak sahro*
that Dewan-stone so-called stone very
cancan sa-ma=na, pyak cancan,
high COP.PST-PRF=NMLZ.SG very high,
ikhiŋ cancan!
how_much high
‘That rock called Dewan stone was really high, it was very high, how high it was!’
[37_nrr_07.042]
- c. *ikhiŋ khumdu nam-my=a!*
how_much tasty smell[3SG]-NPST=NMLZ.NC
‘How good it smells!’

Examples of the other interrogatives are shown in (42).

- (42) a. *qaktar=ci=be kheʔ-ma paryo, hetniŋ,*
doctor=NSG=LOC go-INF[DEONT] having_to when,
hetne kheʔ-ma=na=lai?
where go-INF=NMLZ.SG=EXCLA
‘He has to go to the doctor; when, and where to go?’
[36_cvs_06.179]
- b. *sondu khaʔla=na cuŋ=be tek*
sondu like_this=NMLZ.SG cold=LOC clothes
me-waʔ-le jal kapt-uks-u-g=hoŋ
NEG-wear-CVB net carry-PRF-3.P[PST]-2.A=SEQ
hetnaŋ tae-ka=na?
where_from come[NPST]-2=NMLZ.SG
‘Sondū, where do you come from, in this cold, without clothes, and carrying this net?’
[01_leg_07.232]
- c. *ka ijaŋ cem-me-ŋ-ga=na?*
1SG why cut-NPST-1SG.P-2.A=NMLZ.SG

- ‘Why do you cut me?’ [27_nrr_06.013]
 d. *kisa saŋ-khek-khuwa, hetne*
 deer lead_by_rope-V2.CARRY.OFF-NMLZ where
sa-het-u=na ha?lo?
 lead_by_rope-V2.CARRY.OFF-3.P[PST]=NMLZ.SG EXCLA
 ‘The one who led the deer away, where did he lead it, by
 the way?’ [19_pea_01.024]
- e. *aniŋ=ga ten imin*
 1PL.EXCL.POSS=GEN village how
et-u-ga=na?
 perceive-3.P[PST]-2.A=NMLZ.SG
 ‘How do you like our village?’

5 The noun phrase

The class of nouns is defined by the following structural features in Yakkha: nouns may head noun phrases and function as arguments of verbs without prior morphological derivations. Morphological categories typically associated with nouns are number and case. But since in Yakkha these operate on the phrasal level, the only category identifying lexical nouns is possessive inflection, marked by prefixes. Nouns typically refer to time-stable concepts like living beings, places or things, but also to some abstract or less time-stable concepts like *sakmaŋ* ‘famine’ or *ce?ya* ‘language, matter, word’.

The sections of this chapter deal with the formation of nouns and some properties of lexical nouns (see §??), nominal morphology (see §??), relational nouns (see §??), and with the structure of the noun phrase (see §??).

5.1 Noun formation and properties of lexical nouns

5.1.1 Lexical nominalizations

Yakkha has three basic nominalizing devices, which will be discussed in more detail in Chapter ???. The common Tibeto-Burman nominalizers *-pa* and *-ma* are employed in lexical nominalization, deriving nouns that typically refer to types of persons, food, plants, animals and objects of material culture, e.g., *khikpa* ‘roasted feather dish’ (literally: be bitter-NMLZ; see Table ?? in Chapter ?? for more examples).¹ These markers attach to verbal roots (as far as one can tell since many such nouns are opaque). Occasionally, the marker can also attach to nominal roots, deriving nouns that are semantically associated with the meaning of the root, such as *Yakkhaba* ‘Yakkha man, Yakkha person’.

¹ This dish consists of roasted chicken feathers that are mixed with cooked rice.

As is common among Tibeto-Burman languages, Yakkha does not have a gender system; the nouns are not grouped into classes receiving distinct marking or triggering agreement across the noun phrase or the clause. In lexical nouns referring to persons, *-pa* marks default and male reference, and *-ma* marks female reference. This is particularly prominent in occupational titles (e.g., *thukkhuba/thukkhuma* referring to male and female tailors, respectively) and in kinship terms (e.g., *namba* and *namma* for male and female in-laws, respectively). The marker *-pa* is also the default choice when a group contains members of both sexes, although another frequent option is to use co-compounds in such cases, e.g., *yakkhaba-yakkhamaci* ‘the Yakkha men and women (~ the Yakkha people)’. In the current nominal lexicon (with 930 entries) there are 47 nouns ending in *-pa* and 120 nouns ending in *-ma*, mostly without being etymologically transparent, though.

Various zoological and botanical terms have lexicalized the markers *-ma* and *-pa*, so that such nouns invariably take one or the other marker. The lexeme for mouse is *mima*, for instance, and the lexeme for ‘tiger’ is *kiba*, regardless of whether it is a tiger or a tigress.

There are also 73 nouns that end in *-wa*, a morpheme most probably cognate with *-pa*. These nouns are largely opaque; their roots cannot be determined any more. Examples are *hi?wa* ‘wind’, *chi?wa* ‘nettle’, *lagwa* ‘bat’, *takwa* ‘long needle’, and *lupliwa* ‘earthquake’. Many of them are, again, botanical and zoological terms.²

Some nouns in Yakkha are lexicalized instances of headless relative clauses, e.g., *khuncakhuba* ‘thief’ (steal-eat-NMLZ), *hiŋkhuma* ‘wife’ (support-NMLZ), and *chemha* ‘liquor’ (be transparent-NMLZ), *tumna* ‘senior’ (ripen-NMLZ), *pakna* ‘junior’ (be raw-NMLZ). The nominalizers employed in these examples usually result in syntactic nominalizations, since they derive noun phrases, not nouns. They may either link attributive material to a head noun, or construct headless relative clauses (see Chapter ?? for a detailed description and abundant examples).

² Nouns ending in *wa* can also be related to the lexeme for water or liquid in general, as it is the case in *kiwa* ‘oil’, see below.

5.1.2 Compounding

Some kinds of nouns, particularly toponyms and nouns referring to kinship relations, botanical items, and objects of material culture tend to be multimorphemic. The most common pattern found is nominal compounding. Verb-noun compounds are found marginally, but the verbal roots always show some additional morphological material which can be traced back to nominalizations or infinitives.

5.1.2.1 Co-compounds and sub-compounds

Both co-compounds (symmetric compounds, *dvandva* compounds) and sub-compounds (hierarchical compounds, *tatpurusha* compounds) can be found in Yakkha.³ In sub-compounds, the first noun modifies the second, e.g., *laŋ-sup* ‘sock’ (literally: foot-sheath). In co-compounds, two conceptually close nouns stand as representatives of a concept or group that is more general than these two nouns, e.g., *pa-pum* for ‘male ancestor’ (literally: father-grandfather). The co-compounds generally refer to kinship relations or other groups of people. Table ?? and ?? provide more examples of each type.⁴ Nepali nouns may also participate in nominal compounding (marked by [NEP] in the table).⁵ Only sub-compounds combine Nepali roots with Yakkha roots.⁶

Co-compounds are common in the languages of the eastern regions of Eurasia. The structural difference between co-compounds and sub-compounds is also reflected in their prosody: while sub-compounds constitute one stress domain, in co-compounds each component carries

³ The terms *dvandva* and *tatpurusha* come from the Sanskrit grammatical tradition.

⁴ In current activities of language promotion, many neologisms are coined by some engaged speakers, like *mitniŋwa* ‘belief’ (literally: think-mind). It cannot be said with certainty which of them will become established in the language. So far, they are only used in written materials. Nevertheless these neologisms show that nominal compounding is a productive strategy to create new lexemes in Yakkha as it is spoken today.

⁵ The lexeme *macchi* most probably has a Maithili origin: *marchāi* ‘chili plant’. But it has undergone a substantial semantic shift, meaning ‘chili plant’, ‘chili powder’, and ‘hot sauce or pickles’ in Yakkha. In Belhare, its form is *marci* (Bickel1997Dictionary).

⁶ The nouns *muk* and *laŋ* refer to arm/hand and leg/foot, respectively.

Table 5.1: Co-compounds

YAKKHA	GLOSS	COMPONENTS
<i>cottu-kektu</i>	‘ancestors’	great-grandfather great-great-grandfather
<i>pa-pum</i>	‘male ancestor’	father-grandfather
<i>ma-mum</i>	‘female ancestor’	mother-grandmother
<i>na-nuncha</i>	‘sisters’	elder sister-younger sibling
<i>yakkhaba-yakkhama</i>	‘Yakkha people’	Y. man-Y. woman

Table 5.2: Sub-compounds

YAKKHA	GLOSS	COMPONENTS
<i>yanchalumba-aphu</i>	‘third-born elder brother’	third-born-eB
<i>laŋ-sup</i>	‘socks’	foot-sheath
<i>laŋ-yok</i>	‘step, footprint’	foot-place
<i>maŋme-muŋ</i>	(a kind of mushroom)	eagle-mushroom
<i>luŋme-muŋ</i>	(a kind of mushroom)	needle-mushroom
<i>macchi-luŋkhwak</i>	‘mortar, grinding stone’	chili-stone
<i>maksa-khambo?maŋ</i>	‘blackberry’	bear-raspberry
<i>laŋ-khe?wa</i>	‘toe’	leg-finger
<i>laŋ-hup</i>	‘knee’	leg-thickening
<i>luŋpta-kham</i>	‘landslide’	disperse/bury.NMLZ-ground
<i>hamma-tek</i>	‘blanket’	cover/spread.INF-cloth
<i>laŋ-phila</i>	‘thigh’	leg-thigh[NEP]
<i>laŋ-tapi</i>	‘sole’	leg-hoof (probably [NEP])
<i>muk-tapi</i>	‘palm of hand’	arm-hoof (probably [NEP])
<i>dude-cheŋpi</i>	‘milky onion’	milk[NEP](-e)-onion

its own stress.⁷ The components of either type of compound are treated as one phrase morphologically; case and number (both phrasal affixes in Yakkha) attach only once. Example (1a) shows a co-compound, (1b) shows a sub-compound. In cases of obligatorily possessed nouns, the possessive prefix attaches to both components of a co-compound, as in (1c). Since most co-compounds are from the domain of kinship, no instances of non-obligatorily possessed nouns with possessive marking in co-compounds could be found.

- (1) a. *tukkhuba tukkhuma=ci=ga sewa*
 sick_man sick_woman=NSG=GEN service
 ‘service for sick men and women (i.e., medical service)’
 [01_leg_07.300]
- b. *kaniŋ loʔa wempha-babu=ci*
 1PL like male_teenager-boy=NSG
 ‘lads like we (are)’ [41_leg_09.075]
- c. *u-ppa u-ma=ci=ca*
 3G.POSS-father 3G.POSS-mother=NSG=ADD
 ‘her parents, too’ [01_leg_07.152]

Some sub-compounds appear in a fossilized possessive construction, such as *phakkusa* ‘pork’, literally ‘pig’s meat’ or *wagusa* ‘chicken meat’, literally ‘chicken’s meat’.

In the rather complex kinship system with frequent instances of obligatory possession (cf. §??), the prefixes marking possession usually attach to the first noun, as in *a-cya-mamu* ‘daughter (my child + girl)’ and *a-yem-namma* ‘father-in-law’s elder brother’s wife’ (my father’s elder brother’s wife + female in-law). Exceptions are found in the terminology for in-laws on the cousin level, e.g., *khoknima-a-ŋoteŋma* ‘father-in-law’s sister’s daughter who is younger than EGO (father’s sister’s younger daughter + my-female-in-law)’.

⁷ Cf. also Waelchli2005_Co-compounds on the intermediate position of co-compounds between words and phrases: “There are very few languages where co-compounds are undoubtedly words.” Waelchli2005_Co-compounds

A l ll l : l (PTR * c '.....'

Another syllable appearing in toponyms is *linj*. It is most probably related to PTB *b-lin for ‘forest/field’ (**Matisoff2003Handbook**) and occurs in names of Yakkha villages, e.g., *phaklinj* (pig-field) or *mamlinj* (big field), as it does in toponyms of other Tibeto-Burman languages, too.

(2) *maŋcwalaŋ=be khy-a-ŋ*
 water_tap=LOC go-PST-1SG
 ‘I went to the public water tap.’ [40_leg_08.048]

(3) *siŋ=ga u-laŋ=be*
 tree=GEN 3SG.POSS-foot=LOC
 ‘below the tree’ (the area around the tree, not right below its

roots, and not right next to the stem either)

5.1.2.3 Botanical terms and nouns referring to liquids

Many botanical terms end in *siŋ* for ‘tree’ or in *phuŋ* for ‘flower’, e.g., *lik-liŋphuŋ* ‘mugwort’ and *kekpusiŋ* ‘bull oak’. Above, in §??, nouns in *-wa* were discussed as fossilized nominalizations. A homophonous morpheme with the etymological meaning of ‘water’ is found in 14 lexemes referring to liquids, such as *cuwa* ‘beer’, *naŋwa* ‘glacier’ (snow-water), *casakwa* ‘water in which uncooked rice has been washed’ (rice-water), *lithu?wa* ‘sperm’ and *mikwa* ‘tear’ (eye-water).

5.1.2.4 Lexical diminutives

Diminutive markers have been reported for various Kiranti languages (see Doornenbal2009A-grammar on Bantawa; Ebert1997A-grammar on Athpare; Rutgers1998Yamphu on Yamphu). Yakkha, too, has a class of nouns ending in a morpheme *-lik* ~ *-lek* (without any independent meaning) and referring to small things or animals, e.g., *siblik* ‘bedbug’, *taŋcukulik* ‘pigtail, tuft of hair’, *yaŋlik* ‘seed’, *khelek* ‘ant’, *phokcukulik* ‘navel’, *moŋgalik* ‘garden lizard’, *makchiŋgilek* ‘charcoal’ and *poŋgalik* ‘bud’. This is not a productive derivation process, for two reasons: firstly, independent nouns like *sib* or *yaŋ* do not exist, and secondly, *-lik* it cannot attach to any noun to indicate small size.

Another diminutive-like marker, occurring only with animate nouns, is *cya* ~ *cyak* ‘child’, and it is found in terms for young animals in a fossilized possessive construction, e.g., *phakkucyak* ‘piglet’ (historically: *phak=ka u-cya*) or *wagucya* ‘chick’ (historically: *wa=ga u-cya*).

5.1.2.5 Rhyming in compounds

Yakkha has a few nominal compounds that are built with rhymes and so-called echo words as they are known in Nepali, where this is quite a productive strategy to express associative plurality (e.g., *biskut-siskut* ‘cookies and the like’). In Yakkha, there is, for instance, the name of

a mythological bird, *Selele-Phelele*.⁸ Further examples are *kamnibak-chimnibak* ‘friends’ (no independent meaning for *chimnibak* could be established), *yubak-thingak* ‘goods, property’ (no independent meaning for *thingak* either) or *sidhak-pandhak* ‘traditional, herbal medicine’ (*sidhak* refers to medicine in general, *pandhak* could have been derived from *paŋ* ‘house’). Rhyme-based morphology like reduplication and also triplication is very productive in adjectives and adverbials in Yakkha (see §??).

5.1.3 Proper nouns and teknonymy

Proper nouns identify a unique person, a place or some other entity, such as *Missan* (a female name), *Hombon* (the name of a village) or *Kirant Yakkha Chumma* (the name of a social association). They differ from other nouns in that they rarely form compounds, and when marked as nonsingular, they only allow associative interpretations (X and her/his folks, X and the like).

One subgroup of proper nouns are teknonyms, i.e., names of adults derived from the name of their child, usually their first child. Referring to someone as father or mother of their eldest child is the respectful way to address or refer to older people, instead of using their names. The more frequent choice is, apparently, the name of the eldest son, but exceptions in favor of the eldest daughter’s name are possible. Etymologically, teknonyms are possessive phrases, with the genitive =*ga* and the third person singular possessive prefix *u-* merged into a single syllable [gu], and the head nouns *ma* ‘mother’ and (*p*)*pa* ‘father’ (with geminated /p/ because of the possessive prefix).⁹ The resulting word constitutes a single stress domain, with the first syllable carrying main stress. In case the child’s name does not end in a vowel, an epenthetic element *-e* is inserted. Examples are provided in (4).

- (4) a. *Ram-e-guppa*
 Ram-EPEN-TEK.GEN.M

⁸ Cf. file 21_nrr_04 of the corpus.

⁹ The nasal in the noun *ma*, in contrast, does not undergo gemination. The geminated *umma* that was offered by me in an elicitation earned the comment that this sounded like Limbu, not Yakkha.

- ‘Father of Ram’
 b. *Bal-e-guma*
 Bal-EPEN-TEK.GEN.F
 ‘Mother of Bal’

5.1.4 The count/mass distinction

Mass nouns in Yakkha usually allow both readings, either referring to a concept as such, or to a unit or bounded quantity of that concept. Hence, the same lexeme may occur in different syntactic contexts without any morphological change or the addition of some classifying element. The verbal person marking, however, distinguishes the feature ‘mass’ from both singular and nonsingular. Mass nouns trigger the marker *=ha* on the verb (which is also found with nonsingular number). But with regard to all other verbal markers, the mass nouns trigger singular morphology. Neither the nonsingular marker *-ci* nor the singular clitic *=na* are possible on the verb when the nouns have a mass interpretation.

Compare the two uses of the words *yaŋ* ‘money, coin’ and *chem* ‘music, song’ in (5) and (6). In the (a) examples, these nouns have countable reference, as is evident from the presence of numerals and from the fact that they trigger number agreement on the verb (nonsingular *-ci* in (5a) and singular *=na* in (6a)). In the (b) examples, the nouns have mass reference, and hence do not take the nonsingular marker *=ci*. In fact, adding *=ci* would change the interpretation to nonsingular. The quantifier *pyak* in (5b) is of no help in determining semantic or structural differences, as it may have both a mass reading ‘much’ and a nonsingular reading ‘many’.

- (5) a. *hic=ci yaŋ=ci n-yuks-wa-ci=hoŋ*,
 two=NSG coin=NSG 3PL.A-put_down-NPST-NSG.P=SEQ
 ‘After they will put down two coins, ...’ [26_tra_02.032]
 b. *pyak yaŋ ub-w=ha*
 much money earn-NPST[3SG.A>3.P]=NMLZ.NC
 ‘She earns a lot of money.’
- (6) a. *ka chem chept-wa-ŋ=na*
 1SG[ERG] song write-NPST[3.P]-1SG.A=NMLZ.SG

- ‘I will write a song.’
- b. *chem*(*=*ci*) *end-u-g=ha=i?*
music(*=*nsg*) *apply-3.P[PST]-2.A=NMLZ.NC=Q*
 ‘Did you turn on the music?’
 (It is clear from the context that the speaker did not refer to a plurality of songs, but to the sound coming out of the radio.)

As stated above, Yakkha does not have to add classifiers to distinguish between mass and count reference. There are, however, two markers that may convey this distinction, namely the nominalizers =*na* and =*ha* in attributivizing function (etymologically related to the verb-final markers shown in (6)). In (7), while =*na* implies a bounded quantity, =*ha* implies mass reference. This distinction is parallel to the distinction in the demonstratives discussed in §??.

- (7) a. *to=na* *cuwa*
 uphill=NMLZ.SG *beer*
 ‘the (bowl of) beer standing uphill’
- b. *to=ha* *cuwa*
 uphill=NMLZ.NSG *beer*
 ‘the beer uphill (i.e., the beer of the uphill households)’

A non-exhaustive list of nouns that allow both count and mass reference is provided in Table ??.

5.1.5 Inherent duality

Nouns that typically denote pairs, like legs, eyes, buttocks (but not inner organs like lungs and kidneys), usually occur with the nonsingular marker =*ci*. With regard to verbal agreement, they trigger plural instead of the expected dual marking. Apparently there is no need to maintain the plural/dual distinction with referents typically occurring in sets of two (see (8)).

- (8) *a-tokcali=ci* *n-dug=ha=ci* (**tugaciha*)
 1SG.POSS-buttock=NSG 3PL-hurt-NMLZ.NSG=NSG

Table 5.3: Nouns with both count and mass reference

YAKKHA	GLOSS
<i>cama</i>	‘(portion of) cooked rice’
<i>ceʔya</i>	‘matter, language, word’
<i>chem</i>	‘music, song’
<i>chemha</i>	‘(glass of) liquor’
<i>cuwa</i>	‘(glass/bowl of) beer’
<i>kham</i>	‘ground, mud, (plot of) farm land’
<i>khyu</i>	‘(portion of) cooked meat or vegetables’
<i>manɕwa</i>	‘(container with) water’
<i>sa</i>	‘(portion of) meat’
<i>yaŋ</i>	‘money, coin’
<i>siŋ</i>	‘wood, tree’
<i>tampɰwak</i>	‘hair’

‘My bottom hurts.’

5.2 Nominal inflectional morphology

Nominal inflectional categories in Yakkha are (i) number, (ii) case and (iii) possession.¹⁰ Number and case are generally encoded by clitics (phrasal suffixes). They do not trigger agreement across the noun phrase. The case markers may also attach to nominalized phrases or to anything else in nominal function (see §?? for examples). The only case that may appear phrase-internally is the comitative case, coordinating two nominal heads to form a noun phrase. Since case and number markers operate on the phrasal level, the third category, possessor agreement, is the only category that applies exclusively to lexical nouns. It is encoded by prefixes attaching directly to nouns (discussed together with the pronouns in §??).

Further markers (particles) are possible on noun phrases, but since

¹⁰ *Inflectional* in the sense of ‘regularly responsive to the grammatical environment’ (Bickel et al. 2007: Inflectional).

they pertain to information structure, the reader is referred to Chapter ?? for their discussion.

5.2.1 Number

Yakkha distinguishes singular, dual and plural in the verbal domain and in pronouns, but only singular and nonsingular in nouns. Singular number is unmarked. The nonsingular marker is the phrasal suffix =*ci*, denoting that there are multiple instances of the item in question, or that the item/person in question is accompanied by similar items/person (associative plurality). It attaches to the rightmost element of the noun phrase (usually the nominal head), and thus has scope over the whole noun phrase. The marker does not appear inside the noun phrase, with the exception of numerals (see §??). Case markers follow the number marker (see (9)).

- (9) a. *kucuma*
dog
'a/the dog'
b. *ghak kucuma=ci=be*
all dog=NSG=LOC
'at/to all the dogs'

The status of *=ci* as a phrasal clitic is clearly confirmed when looking at headless noun phrases or noun phrases where the order of head and modifier is reversed for reasons of information structure. The nonsingular marker may follow a genitive marker (see (10a)) or (syntactic) nominalizers (see (10b)), devices that would link modifying material to a head noun if there was one. In (10c), attributive material follows the head noun, and since it is the rightmost element, the nonsingular marker attaches to it.

- (10) a. *heko=na paʔi=ga=ci*
 other=NMLZ.SG side=GEN=NSG
 ‘those (children) from the other side (i.e., the other wife)’
 [06 cvs 01.054]

- b. *hau, kha=go, eη=ga yapmi*
 EXCLA these=TOP 1PL.INCL.POSS=GEN person
lo?a=ha=ci=ca
 like=NMLZ.NSG=NSG=ADD
 ‘Oh, these guys, they are like our people, too.’
 [22_nrr_05.044]
- c. *pahuna ta-khuba=ci*
 guest come-NMLZ=NSG
 ‘the guests who are coming’
 [25_tra_01.063]

5.2.1.1 Omission of nonsingular =ci

Number marking on nouns is not obligatory. With non-human reference it is frequently omitted. In (11a), it is clear from the context, from the demonstrative *ηkha* and from the verbal agreement that *luηkhwak* refers to more than one stone. With human referents, number marking cannot be omitted so easily (see (11b)). Another factor interacts with animacy/humanness here, namely generic vs. specific reference. In (11c), there is nonsingular human reference, but in a generic sense, referring to abstract classifications of people (those with whom one is/is not allowed to eat, in accordance with Hindu social law).¹¹ Here, the number marking can be omitted, in contrast to (b) where the noun refers to a specific group of people, namely the speaker’s friends. With specific human reference, nonsingular marking was omitted only in songs, a genre which is expected to show deviations from spoken language, due to other constraints like rhythm and rhyming.

- (11) a. *ηkha mamu=ci=ηa ηkha luηkhwak*
 those girl=NSG=ERG those stone
n-leks-u-ci=ha=bu
 3PL.A-turn_over-3.P[PST]-3NSG.P=NMLZ.NSG=REP
 ‘Those girls have turned around those rocks, it is said.’
 [37_nrr_07.118]

¹¹ The Yakkha belong to the Kiranti cultural sphere, but the past centuries of Hindu dominance have left their mark on the social organization of many Tibeto-Burman groups in Nepal.

- b. **a-kamnibak*
 1SG.POSS-friend
chimd-u-ŋ-ci-ŋ=ha
 ask-3.P[PST]-1SG.A-NSG.P-1SG.A=NMLZ.NSG
 Intended: 'I asked my friends.'
- c. *ca-m=ha* *yapmi*
 eat-INF[DEONT]=NMLZ.NSG people
men-ja-m=ha *yapmi, kha*
 NEG-eat-INF[DEONT]=NMLZ.NSG people these
imin=ha=ci?
 how=NMLZ.NSG=NSG
 '(Are they) people with whom we should eat, or with whom
 we should not eat, of what kind (are they)?' [22_nrr_05.040]

Number marking can also be omitted when a numeral is present in the noun phrase (see (12a) and (12b)). However, instances with overt nonsingular marking, as in example (12c), are far more frequent.

- (12) a. *hip-paŋ* *babu*
 two-CLF.HUM boy
 'two boys'
- b. *hip-paŋ* *paghyam-maghyam*
 two-CLF.HUM old_man-old_woman
 'an old couple' [01_leg_07.280]
- c. *sum-baŋ* *phak-khuba* *yapmi=ci*
 three-CLF.HUM help-NMLZ person=NSG
 'three servants' [04_leg_03.015]

5.2.1.2 Associative interpretations of nonsingular marking

Nonsingular marking can be interpreted associatively, referring to people who can be associated to the respective noun (see (13a) and (13b)), a feature that is also found in other languages spoken in this area, e.g., in Newari Genetti2007_Newari and in Nepali (own observations). Occasionally, objects with nonsingular marking can also be found with an associative interpretation (see (13c)), but this is rare at least in the current corpus; one rather finds enumerations of various objects than

associative plural marking if a plurality of items is given.

- (13) a. *a-korɲma=ci=nun=le* *wɛʔ=naʔ*
1SG.POSS-MyZ=NSG=COM=CTR exist[3SG]=NMLZ.SG
‘Oh, she lives with my aunt and her people?’
[06_cvs_01.074]
- b. *Lila didi=ci*
Lila elder_sister=NSG
‘Sister Lila and her family’
[13_cvs_02.059]
- c. *i=ha* *i=ha* *yuncamakekek*
what=NMLZ.NC what=NMLZ.NC funny
ceʔya *chumma=ci* *n-leks-a*
matter assembly=NSG 3PL-happen-PST
‘Various funny incidents, meetings and the like occurred
there.’
[41_leg_09.008]

5.2.2 Core case markers (Group I)

Case, in the classical sense, is understood as the morphological marking on a noun or a noun phrase that indicates its syntactic relatedness either to a predicate (arguments or circumstantial participants) or to another noun (in the case of the genitive and the comitative). Yakkha distinguishes case clitics that operate on the noun phrase level, marking verbal arguments (Group I, discussed in this section), and markers that are functionally more flexible, and also less dependent phonologically (Group II, discussed in §??).

Case marking (ergative, genitive, comitative, equative) may also appear on dependent clauses that are often, but not necessarily, nominalized, as will be shown below and in Chapter ?? on adverbial clause linkage as well as in Chapter ?? on complementation. The parallelism between case markers and clause linkage markers is well-known in Kiranti and Tibeto-Burman in general (Genetti1986The-development; DeLancey1985_Etymological; Ebert1993Kiranti).¹²

¹² It is, however, not clear yet whether there was a historical development from nominal case markers to clause linkage markers, or whether this parallelism is original to the system.

Group I distinguishes seven cases, as shown in Table ?? . Case, like number, is marked by enclitics in Yakkha, except for the nominative, which is the functionally and morphologically unmarked case in Yakkha. Since the case suffixes operate on the phrasal level, they attach to the rightmost element of the noun phrase. The case markers that start in a plosive have voiced allomorphs intervocally and after nasals.

Table 5.4: Case markers (Group I)

CASE	MARKER	FUNCTION
nominative	Ø	intransitive subject, transitive patient, ditransitive theme and goal, citation form, location (restricted use), copular topic and predicate
ergative	= <i>ŋa</i>	transitive subject
instrumental	= <i>ŋa</i>	instrument, ditransitive theme, temporal reference
genitive	= <i>ka</i>	possession, material
locative	= <i>pe</i>	location, ditransitive recipients and goals, temporal reference
ablative	= <i>phaŋ</i>	source arguments
comitative	= <i>nun</i>	coordination, associated referents, source arguments of some verbs

We know from other Kiranti languages that case markers can be stacked to yield more specific functions (e.g., Ebert1994The-structure Dirksmeyer2008Spatial Schikowski2013_Thesis). Generally, composite case markers are common in Tibeto-Burman languages (DeLancey1985_Etymological). In Yakkha, the locative or the ablative case marker can be added to the genitive of a proper noun to yield the meaning ‘at/from X’s place’. The ablative is also historically complex (see §?? below).

Several Kiranti languages have a (generally optional) dative marker -*lai* (e.g., Bantawa (Doornenbal2009A-grammar), Puma (Bickeletal2007Two-ways), Camling, Athpare and Thulung (Ebert1994The-structure)), which is homonymous with the Nepali dative marker -*lāi* and probably a loan. Yakkha, however, does not employ this marker. It uses other strategies to mark semantic roles typically associated with dative marking: recipients and

goals are either in the nominative or in the locative, and experiencers appear in various frames of argument realization, most prominently the Experiencer-as-Possessor frame.

In the following, the cases of Group I and their functions will be introduced. More detailed information on argument realization and transitivity is found in Chapter ??.

5.2.2.1 The nominative (unmarked)

The nominative is morphologically and functionally the unmarked case in Yakkha.¹³ Participants in the nominative appear in their citation form, without any further marking. Intransitive subjects (S), transitive patients (P), ditransitive theme (T) and goal arguments (G), topic and comment of copular clauses, and to a certain extent locations, too, can be in the nominative and thus unmarked in Yakkha.¹⁴ Example (14) shows S, P, T and G arguments in the nominative.¹⁵

¹³ Functional unmarkedness does not imply morphological unmarkedness, as research on marked-S languages has shown (*Handschuh2011_thesis*; *Brown2001_Nias*). In the Yakkha case system, morphological and functional unmarkedness coincide.

¹⁴ With the discovery of ergativity, the term ‘absolutive’ came into use relatively recently to refer to the case of intransitive subjects and transitive objects when these have the same case (see *McGregor2009_Ergativity* and *Haspelmath2009_Terminology* for summaries of the historical gestation of the term ‘ergative’). Since then, research on ergativity has revealed that the system is far from uniform, and optional in many languages, other factors such as reference and information structure playing a greater role than had been expected. Haspelmath mentions the problem that the terminology nominative-accusative-ergative-absolutive refers to an ideal system which is rarely found (*Haspelmath2009_Terminology*). Both nominative and absolutive refer to the functionally unmarked case in a system, and their application usually extends well beyond marking S and P arguments. Therefore, I do not see the need to maintain the distinction between the terms ‘nominative’ and ‘absolutive’, since the unmarked case in an ergative system and the unmarked case in an accusative system have probably more shared properties than properties distinguishing them. Since ‘nominative’ is the older term, it will be used in this work.

¹⁵ To keep the glosses as short and straightforward as possible, the nominative is generally not glossed.

- (14) a. *ka maŋcwa=be khe-me-ŋ=na*
 1SG water=LOC go-NPST-1SG=NMLZ.SG
 ‘I go to fetch water.’
 b. *nasa=ci ŋ-und-wa-ci*
 fish=NSG 3PL.A-pull_out-NPST-3NSG.P
 ‘(They) pull out the fish.’
 c. *ka nda caklet pi-me?-nen=na*
 1SG[ERG] 2SG sweet give-NPST-1>2=NMLZ.SG
 ‘I will give you a sweet.’

Yakkha shows a typologically common nominative/ergative syncretism: transitive subjects that are represented by a first or second person pronoun always appear unmarked (cf. §??).

Furthermore, both topic and comment in identificational copular constructions (see (15)), and the figure in existential/locative copular constructions (see (15c)) are in the nominative.

- (15) a. *na ak=ka paŋ (om)*
 this 1SG.POSS=GEN house (COP)
 ‘This is my house.’
 b. *ka=go arsale le?lo!*
 1SG=TOP person_from_year_eight CTR.EXCLA
 ‘I was born in the year eight (B.S.), man!’ [06_cvs_01.027]
 c. *nnakha=e maŋcwa=ca m-ma-ya-n*
 that=LOC water=ADD NEG-be-PST[3SG]-NEG
 ‘There was no water, too.’ [42_leg_10.009]

Nominative arguments are also found in motion verb constructions, where a locative would be expected on the goal of the movement (see (16)). This option exists only for typical and frequent goals of movement, such as villages, work places, a school, a weekly market etc. The respective nouns are never modified (see (17a), which was elicited in analogy to a sentence from the corpus, and which is well-formed only with a locative). Complements of verbs stating existence or location (‘be at X’) can generally not occur unmarked, but exceptions in the colloquial register are possible (see (17b)). The nouns in the nominative thus share features with incorporated nouns, although on other grounds they are

not incorporated. Since the nouns mostly refer to names of places or landmarks, they refer to highly individuated participants, while incorporated nouns are often rather generic.

- (16) a. *Poklabuŋ tas-a-ma-c-u=hoŋ,*
 Poklabung[LOC] arrive-PST-PRF-DU-3.P=SEQ
 ‘When they arrived in Poklabung, ...’ [22_nrr_05.017]
- b. *ka tʰuŋkha khy-a-ŋ=niŋ,*
 1SG steep_slope[LOC] go-PST-1SG=CTMP
 ‘When I was heading to the steep slopes, ...’ [40_leg_08.036]
- (17) a. *uŋci=ga ten*(=be) khy-a-ma-ci,*
 3NSG=GEN village*(=LOC) go-PST-PRF-DU
 ‘They went to their village, ...’ [22_nrr_05.037]
- b. *tumok waiʔ-ŋa=na*
 Tumok[LOC] be[NPST]-1SG=NMLZ.SG
 ‘I am in Tumok.’ (said on the phone)

5.2.2.2 The ergative =*ŋa*

Transitive and ditransitive A arguments are marked by the ergative =*ŋa* (see (18)), except when they are first or second person pronouns, which display an ergative/nominative syncretism (see (19)).

- (18) a. *na, jaba, na mamu=ŋa luŋkhwak pok-ma*
 this when this girl=ERG stone raise-INF
n-yas-u-n,
 NEG-be_able-3.P[PST]-NEG
 ‘This one, when this girl could not raise the stone, ...’
 [37_nrr_07.039]
- b. *ka a-ma=ŋa khaʔla*
 1SG 1SG.POSS-mother=ERG like_this
ly-a-ŋ:
 tell[3SG.A]-PST-1SG.P
 ‘Mother told me the following: ...’ [42_leg_10.011]

- (19) a. *jeppa nna len ka a-ma=nun*
 really that day 1SG[ERG] 1SG.POSS-mother=COM
a-na=ga ce?ya
 1SG.POSS-eZ=GEN matter
y-yen-u-ηa-n=na=ηa,
 NEG-obey-3.P[PST]-1SG.A-NEG=NMLZ.SG=ERG.CL
 ‘Really, that day, because I did not listen to my mother’s
 and my elder sister’s warnings, ...’ [42_leg_10.051]
- b. *iya nniηda, eh, njiηda*
 what 2PL[ERG] oh 2DU[ERG]
yon-me-c-u-ga,
 search-NPST-DU-3.P-2.A
 ‘Whatever you (dual) look for, ...’¹⁶ [22_nrr_05.084]

In Yakkha, first or second person reference can also be instantiated by full nouns instead of pronouns, which is unusual from the perspective of Indo-European languages. One may have a sentence with first or second person verbal person marking, but the structural position of the pronoun is occupied by a noun, as shown in (20).¹⁷ In such participant configurations, there is overt ergative marking on the noun. To make a long story short, the differential agent marking is mainly determined by word class, but also by reference.

- (20) a. *phu=na mamu=ηa yakkha ce?ya*
 white=NMLZ.SG girl=ERG Yakkha language
nis-wa-g=hoη
 know-NPST-2=SEQ
maη-di-me-η=na!
 be_surprised-V2.GIVE-NPST-1SG=NMLZ.SG
 ‘I am surprised since you, a white girl, know Yakkha!’
- b. *a-pharη=ηa men=na,*
 1SG.POSS-MyZH=ERG NEG.COP[3]=NMLZ.SG

¹⁶ The speaker is correcting himself from plural to dual pronoun.

¹⁷ Flexible agreement is discussed in §??. On the principles behind agreement in Tibeto-Burman see Bickel2000On-the-syntax

a-kɔŋma=ŋa=le *ta-ga=na*
 1SG.POSS-MyZ=ERG=CTR bring[PST;3.P]-2.A=NMLZ.SG
raeča
 MIR
 ‘Not the uncle, but you, auntie, really brought her here (the second wife)!’
[06 cvs 01.042]

The examples in (21) show that the ergative marker attaches to the final element of the phrase, whether two nouns are conjoined by a comitative (see (21a) and (b)) or whether the final element is a participle, as in (21c).¹⁸

- (21) a. *lalubaŋ=nun phalubaŋ=ŋa mamliŋ*
 Lalubang=COM Phalubang=ERG Mamling
tas-a-ma-c-u
 arrive-PST-PRF-DU-3.P
 ‘Lalubang and Phalubang arrived in Mamling.’
 [22_nrr_05.041]
- b. *a-ma=nun a-na=ŋa*
 1SG.POSS-mother=COM 1SG.POSS-sister=ERG
y-yog-a-n=niŋ=bi,
 NEG-search[3A;1.P]-SBJV-NEG=CTMP=IRR
 ‘If my mother and sister had not searched for me, ...’
 [42_leg_10.052]
- c. *beuli=ga=ca u-nuncha parne=ŋa*
 bride=GEN=ADD 3SG.POSS-younger_sibling falling=ERG
chata ham-met-wa
 umbrella spread-CAUS-NPST[3A;3.P]
 ‘Someone who is a younger sister of the bride, too, spreads
 an umbrella over her.’
 [25_tra_01.053]

For several Tibeto-Burman languages, ergative marking has been described as ‘optional’ and depending on pragmatic factors (see e.g., LaPolla1995 Ergative

¹⁸ The comitative marker may function as a coordinator, much like English ‘and’. The verbal person marking is triggered by the collective number features of both nouns (dual in (a), and nonsingular in (b)). The negated form *yyogan* is found in all scenarios with third person acting on first, except for 3SG>1SG.

for a comparative account; **Tournadre1991_Rhetorical** on Lhasa Tibetan; **Coupe2007_Mongsen** on Mongsen Ao; **Hyslop2011_Kurtop** on Kurtöp). Yakkha, however, has a strictly grammaticalized system of ergative marking; the ergative is obligatory on A arguments (under the above-mentioned conditions), which is in line with the findings on other Kiranti languages. **Doornenbal2009A-grammar** notes the same for Bantawa. **Bickel2003Belhare** mentions an alignment split in Belhare that leaves first person singular pronouns unmarked.¹⁹ The differential marking found on first and second person pronouns in Yakkha is determined by reference and word class, not by pragmatics.

On a final note, the ergative marker is also employed in adverbial clause linkage (see Chapter ??).

5.2.2.3 The instrumental $=\eta(a)$

Yakkha exhibits an ergative-instrumental syncretism, which is not unusual, especially not in Kiranti. By formal criteria, except for one exception discussed below, the two cases cannot be distinguished. Functionally, though, they are distinct: the ergative marks animate agent arguments, while the instrumental typically marks inanimate participants like instruments (22a), effectors, forces and causes (22b).

- (22) a. *chom=na* *phiswak=ɲa*
pointed=NMLZ.SG knife=INS
hot-haks-u=na
pierce-V2.SEND-3.P[PST]=NMLZ.SG
'He pierced it with a pointed knife.'
- b. *kisi?ma=ɲa* *solop* *miyaŋ*
fear=INS immediately a_little
eg-haks-uks-u
break-V2.SEND-PRF-3.P[PST]
'Out of fear, he immediately broke off a little (from the stick).'
- [04 leg 03.023]

¹⁹ Also non-Kiranti languages like Newari, Chepang and Kham have ‘stable’ grammaticalized ergative marking (LaPolla1995_Ergative), while this is not as clear for Classical Tibetan (DeLancey2011_Optional).

The medium for communication is also marked by the instrumental (23). In this usage, an allomorph = η is possible.²⁰ In other Eastern Kiranti languages like Belhare, Chintang or Limbu, this function is taken over by a mediative/perlative marker *-lam* (Bickel2003Belhare Schikowski2012_Morphology Driem1987A-grammar). A perlative case is not attested in Yakkha, at least not in the variety spoken in Tumok.

- (23) a. *anin*=*ga* *ce?**ya*= η =*bu* *chem*
 1PL.EXCL.POSS=GEN language=INS=REP song
lum-bi?-*ma*=*na*=*lai*
 tell-V2.GIVE-INF[DEONT]=NMLZ.SG=EXCLA
 ‘She says we have to sing a song in our language.’ (reporting
 on the deontic statement of a person not included in the
 group) [06_cvs_01.102]
- b. *e* η =*ga* *ce?**ya*= η *sarab*
 1PL.INCL.POSS=GEN language=INS curse
pi-ci=*ha* *leks-a*
 give-3NSG.P[3A;PST]=NMLZ.NSG become[3SG]-PST
 ‘It happened that it (the sun) cursed them (the Linkha clan
 members) in our language.’ [11_nrr_01.031]

The instrumental also indicates temporal reference (see (24)). On a side note, it is very likely that the adverbial clause linkage markers *-san* and *=nin(a)* (both marking cotemporality) are based on the ergative/instrumental case etymologically.

- (24) a. *wandik*= η *a* *ta-me?*=*na*
 next_day=INS come[3SG]-NPST=NMLZ.SG
 ‘He will come tomorrow.’
- b. *khinbela?*= η *a*
 this_time=INS

²⁰ Note the employment of exclusive vs. inclusive morphology in example (a). The speaker narrates the event from the perspective of the person who made the deontic statement, thus choosing the exclusive pronoun, despite the fact that the person she addresses is included. This shows that clusivity in Yakkha is not necessarily determined by including or excluding the addressee, but also by other people present in the speech situation.

‘at this time’

5.2.2.4 The genitive =*ka*

The genitive case is marked by the suffix =*ka* (mostly realized as [ga] as result of the voicing rule, see §??). It is used for possessive constructions, linking a possessor to a head noun (see (25)). As mentioned in §?? on possessive pronouns, the possessee may be inflected by a possessive prefix, as in (25b) and (25c). The possessive inflection may occur in addition to a genitive-marked possessor, or may replace it, as in (25c).

- (25) a. *limbukhim=ci=ga tarjme*
a_clan=NSG=GEN daughter-in-law
‘a daughter-in-law of the Limbukhims’ [37_nrr_07.002]
- b. *isa=ga u-chya?*
who=GEN 3SG.POSS-child
‘Whose child (is it)?’
- c. *m-ba m-ma=ci*
2SG.POSS-father 2SG.POSS-mother=NSG
‘your parents’

The head noun can also be omitted. The structure shown in (26a) is similar to a headless relative clause. Genitive-marked attributes may also be linked recursively to a head noun (see (26b)).²¹

- (26) a. *heko=na* *patti=ga=ci*
 other=MMLZ.SG side=GEN=NSG
 ‘those (children) from the other one (i.e., the other wife)’
 [06_cvs_01.033]
- b. *aniŋ=ga* *liŋkha=ga* *uhile* *utpati*
 1SG.EXCL.POSS=GEN a_clan=GEN long_ago origin
 mamliŋ=be *leks-a=na=bu*
 Mamling=LOC happen[3SG]-PST=NMLZ.SG=REP

²¹ The example also shows that, at least in spoken language, discontinuous phrases are possible, since the adverb *while* belongs to the verb, but occurs inside the noun phrase.

‘Our Linkha clan originated long ago in Mamling, they say.’
[11_nrr_01.002]

Relational nouns functioning as spatial adpositions also require the genitive, illustrated by (27). They are used in a possessive construction to which a locative must be added (see (27b); cf. also §??).

- (27) a. *tebul=ga mopparik*
table=GEN under
‘under the table’
b. *saptakosi=ga u-lap=pe*
a_river_confluence=GEN 3SG.POSS-wing=LOC
‘on the shores of the Saptakosi’ [37_nrr_07.044]

The genitive is also employed to mark nominal modifiers referring to the material which the head noun is made of, as shown in (28).

- (28) a. *kolenluŋ=ga cuʔlumphi*
marble=GEN stele
‘a/the stele made of marble’ [18_nrr_03.001]
b. *siŋ=ga sangon*
wood=GEN stool
‘a/the wooden stool’
c. *plastik=ka jhola=be*
plastic=GEN bag=LOC
‘in a plastic bag’ [13_cvs_02.045]
d. *chubuk=ka caleppa*
ashes=GEN bread
‘bread of ashes’²² [40_leg_08.056]

5.2.2.5 The locative =pe

Yakkha has only one locative case marker =pe ([be] when voicing applies; it can be further reduced to [we] or simple [e]). Kiranti languages typically exhibit a four-fold distinction of deictic locative case markers

²² A punishment for children: smearing ashes on their cheeks and slapping them.

that respond to the hilly topography of the environment.²³ Such a case system consists of (i) one generic locative and three further markers to locate items (ii) above, (iii) below or (iv) on the same level as the deictic origin.²⁴ While other Eastern Kiranti languages such as Limbu and Ath-pare also lack those altitudinal cases (Ebert1997A-grammar Driem1987A-grammar), Belhare, seemingly the closest relative of Yakkha, displays them (Bickel2001Deictic). The locative marks the spatial coincidence of an entity defined as FIGURE with an environment or landmark defined as GROUND (Levinsonetal2006_Grammars). It has a very general meaning, covering relations of containment, proximity and contact, translatable as ‘in’, ‘at’ and ‘on’. Examples are provided in (29).

- (29) a. *khorek=pe cuwa*
 bowl=LOC beer
 ‘There is beer in the bowl.’
 b. *nwak=ka o-hop=pe*
 bird=GEN 3SG.POSS-nest=LOC
 ‘in the nest of the bird’
 c. *o-thok=pe ton-me?=na*
 3SG.POSS-body=LOC fit[3SG]-NPST=NMLZ.SG
 ‘It suits/fits on her body.’

The basic locative construction Levinsonetal2006_Grammars the answer to the question ‘Where is F?’ is a copular construction with *wama* (with the suppletive nonpast stems *wai?*, *wɛ?*, *wei*) ‘be, exist’ (see (30a)). The same construction (with different information structure) is generally used to introduce topics in the beginning of narratives (see (30b) and (30c)).

- (30) a. *wa=ci kanyon=be*
 chicken=NGS chicken_basket=LOC
 η-wai?=ya=ci
 3PL-be[NPST]=NMLZ.NSG=NSG

²³ E.g., Camling, Bantawa, Puma, Thulung, Khaling (Ebert1994The-structure); Yamphu (Rutgers1998Yamphu); Belhare (Bickel2001Deictic).

²⁴ Termed ‘vertical case’ in Ebert1994The-structure ‘altitudinal case’ in Dirksmeyer2008Spatial

- ‘The chicken are in the chicken basket.’ (a basket with small opening, to transport chicks)
- b. *panckapan=ga kerabari=be eko māḍa*
a_region=GEN banana_plantation=LOC one huge
luṅkhwak weʔ=na
stone exist[3SG;NPST]=NMLZ.SG
‘In the banana plantations of Päckapan, there is a huge rock.’ [39_nrr_08.01]
- c. *eko ten=be eko maghyam*
one village=LOC one old_woman
wei-sa=na
exist[3SG;NPST]-PST=NMLZ.SG
‘In a village, there was an old woman.’ [01_leg_07.060]

Destinations of motion verbs and verbs of caused motion are generally marked by the locative, illustrated by (31). As explained above in §??, in certain scenarios the locative marking on the destinations of motion verbs can be omitted.

- (31) a. *khali puṇda=we kheʔ-m=ha*
only jungle=LOC go-INF[DEONT]=NMLZ.NSG
‘Their only option was to go to the forest.’ [22_nrr_05.045]
- b. *ṅkhiṇbelak=pe phopciba=ca ok-saṇ hop=pe*
that_time=LOC owl=ADD shriek-SIM nest=LOC
pes-a-khy-a-ma
fly[3SG]-PST-V2.GO-PST-PRF
‘That time, the owl flew back to its nest, shrieking.’ [42_leg_10.042]
- c. *khokpu=ga siṇ=be thaṇ-ma=ga cog-a-ṇ*
fig=GEN tree=LOC climb-INF=GEN do-PST-1SG
‘I tried to climb the fig tree.’ [42_leg_10.020]
- d. *beula=ga paṇ=be beuli*
groom=GEN house=LOC bride
ṇ-ghet-u=hoṇ,
3PL.A-take_along-3.P[SBJ]=SEQ
‘They take the bride into the groom’s house and ...’

Example (32) shows three-argument constructions with locative-marked G arguments. Both inanimate and animate G arguments (i.e., goals and recipients) can be in the locative. Depending on the frames of argument realization, the locative is obligatory for some verbs, but optional for others (cf. §?? for a discussion of three-argument frames, alternations and differential object marking).

- (32) a. *ka a-cya=ci iskol=be*
 1SG[ERG] 1SG.POSS-child=NSG school=LOC
paks-wa-η-ci-η=ha
 send-NPST-1SG.A-NSG.P-1SG.A=NMLZ.NSG
 'I send my children to school.'
- b. *uη=ηa ka=be mendhwak*
 3SG=ERG 1SG=LOC goat
haks-wa=na
 send[3SG.A;3.P]-NPST=NMLZ.SG
 'He sends me a goat.'

Ownership can be expressed by a verb of existence and the possessor in the locative (see (33)). The existential verb has a suppletive form *ma* for negated forms (33b).

- (33) a. *ηga=be yaη wai?=ya?*
 2SG.POSS=LOC money exist[3SG;NPST]=NMLZ.NSG
 'Do you have money?'
- b. *eη=ga=be yaη*
 1PL.INCL.POSS=GEN=LOC money
m-ma-n=ha
 NEG-exist[3;NPST]-NEG=NMLZ.NSG
 'We do not have money.' (said among own people)

It is not surprising to find the locative marking extended to temporal reference. However, the more frequent marker in this function is the instrumental =*ηa*. The locative in (34) might well be a Nepali calque, since, except for *na*, all words in (34) are Nepali loans.

- (34) a. *na tihar din=be*
 this a_hindu_festival day=LOC
 ‘on this Tihar day’ [14_nrr_02.026]
- b. *uncas sal=be*
 thirty-nine year=LOC
 ‘in the year thirty-nine’ [06_cvs_01.013]

There are also some fixed expressions with the locative, shown in (35).

- (35) a. *mañcwa=be khe-me-ka=na=i?*
 water=LOC go-NPST-2=NMLZ.SG=Q
 ‘Do you go to get water (from the well)?’ [13_cvs_02.066]
- b. *daura=be khe-me-η=na*
 fire_wood=LOC go-NPST-1SG=NMLZ.SG
 ‘I go to get fire wood.’

There is a secondary locative marker =*ge* ~ =*ghe*,²⁵ used only with human reference, to express the notion ‘at X’s place’ (see (36)).²⁶ The morpheme =*ge* is a contraction of the genitive =*ga* and the locative =*pe*, a structure calqued from Nepali, where one finds e.g., *tapāi-ko-mā* ‘at your place’ (you-GEN-LOC), *mero-mā* ‘at my place’ (mine-LOC).

- (36) a. *isa=ge?*
 who=LOC
 ‘At whose place?’
- b. *bagdata nak-se khe?-ma*
 marriage_finalization ask_for-SUP go-INF[DEONT]
paryo, mapaci=ghe, maiti=ci=ghe
 have_to.3SG.PST, parents=LOC natal_home=NSG=LOC
khe?-ma=hoη,
 go-INF[DEONT]=SEQ
 ‘One has to go and ask for the Bagdata (ritual), one has to go to the parents, to the wife’s family, and ...’
 [26_tra_02.013]

²⁵ Both forms are equally acceptable, and semantic differences could not be detected.

²⁶ The word *maiti* in (b) is a Nepali loan and refers to the natal home of a married woman.

5.2.2.6 The ablative =*phan*

The ablative =*phan* (or [bhan] due to voicing) marks the source of movement or transfer (see (37)). Etymologically it could be the result of stacking an older ablative =*han* upon the locative marker =*pe*. Various other Kiranti languages have such complex ablative markers based on the locative marker, too (Ebert1994The-structure). In this light it might also be noteworthy that Grierson lists an ablative -*bohun* for a Yakkha dialect spoken in the beginning of the 20th century in Darjeeling (Grierson1909Linguistic). A possible cognate to the older marker =*han* is the Belhare ablative =*hun* ~ =*etnahun* (Bickel2003Belhare).²⁷

- (37) a. *taŋkheŋ=bhan tuknuŋ perco?wa*
 sky=ABL thoroughly lightning
uks-a-ma,
 come_down[3SG]-PST-PRF
 ‘Strong lightning came down from the sky.’ [21_nrr_04.017]
- b. *nna=be ŋ-hond-u-n-ci-n=on nna*
 that=LOC NEG-fit-3.P-NEG-3NSG.P=SEQ that
lupluŋ=bhan tumhan
 cave=ABL Tumhang
lond-a-khy-a=na
 come_out-PST[3SG]-V2.GO-PST=NMLZ.SG
 ‘As they did not fit there anymore, Tumhang came out of that cave.’ [27_nrr_06.005]

The ablative is also used to signify the starting point for a measurement of distance, as in (38).

- (38) *i let u-cya=ŋa u-ma*
 one day 3SG.POSS-child=ERG 3SG.POSS-mother
paŋ=bhan maŋdu ta-me?-ma mit-uks-u
 house=ABL far arrive-CAUS-INF think-PRF-3.P[PST]
 ‘One day, the son wanted to bring his mother far away from the house.’ [01_leg_07.067]

²⁷ The form =*etnahun* is most probably also combined of a locative and an ablative marker.

The medium of motion and the technical medium of communication can also be marked by the ablative, in parallel to the functions of the Nepali ablative *bāṭa*.

- (39) a. *kaniŋ nawa=bhaŋ hoŋma*
 1PL[ERG] boat=ABL river
kakt-wa-m-ŋa=na
 cross-NPST-1PL.A-EXCL=NMLZ.SG
 ‘We will cross the river by boat.’
- b. *kithrikpa=ŋa solop maik=phaŋ*
 policeman=ERG immediately microphone=ABL
lu-ks-u-ci
 call-PRF-3.P[PST]-3NSGP
 ‘The policeman immediately called out their names with the microphone.’ [01_leg_07.166]
- c. *thawa=bhaŋ to ŋ-khy-a-ma=niŋ=go mamu*
 ladder=ABL up 3PL-go-PRF=CTMP=TOP girl
nnhe=maŋ weʔ=na=bu
 there=EMPH exist[3SG]=NMLZ.SG=REP
 ‘When he climbed up on the ladder, the girl was right there (they say)!’ [22_nrr_05.111]

It is not unusual for Tibeto-Burman languages to display syncretisms between locative, allative and ablative (DeLancey1985_Etymological). In the majority of the Yakkha data, the Yakkha ablative marks the source, but there are quite a few examples with an ablative form (or an adverb derived by an ablative) marking the goal of a movement. Thus, Yakkha shows a syncretism between ablative and allative, to the exclusion of the locative.

- (40) a. *heʔnang khe-ks-a-ga=naʔ*
 where[ABL] go-V2.CUT-PST-2=NMLZ.SG
 ‘Where are you about to go?’
- b. *yondhan khy-a*
 across[ABL] go-IMP
 ‘Go there.’

‘Go from there.’

Just like the secondary locative =*ge* ~ =*ghe*, the ablative shows a secondary form =*ghan* that is used only with human reference, illustrated by (41a). Furthermore, the sentences in example (41) show that the ablative is not sensitive to topographic information. There is just one marker, used irrespective of directions and elevation levels with respect to the deictic center.

- (41) a. *lumba=ghan ukt-u-η-ci-η,*
 Lumba=ABL bring_down-3.P[PST]-1SG.A-3NSG.P-1SG.A
 lumbapasal=bhan
 shop_of_Lumba=ABL
 ‘I brought them down from Lumba (a person), from the
 Lumba shop.’ [36_cvs_06.049]
- b. *yanliham=bhan=jhen, koi.*
 lowland=ABL=TOP some
 ‘From the lowlands (local lowlands, not the Tarai), some
 people.’ [36_cvs_06.465]

In some interrogative words and adverbs one can still see that they were composed of some root and an older ablative marker, e.g., in *nhan* ‘from here/and then’ and *he?nan* ~ *he?nhan* ‘where from’.²⁸

- (42) a. *he?nan tae-ka=na, mamu?*
 where_from come[NPST]-2=NMLZ.SG, girl
 ‘Where do you come from, girl?’
- b. *mondan ky-a-η=na*
 below[ABL] come_up-PST-1SG=NMLZ.SG
 ‘I came up from below.’

The ablative is generally not used for temporal reference. There is a postposition *nhan*to that covers this function (cf. §?? below).

²⁸ Both forms *he?nan* and *he?nhan* are equally acceptable to the speakers, and semantic differences could not be detected.

5.2.2.7 The comitative =*nun*

The comitative marker =*nun* is cognate to Limbu -*nu*, Thulung -*nun* (Ebert1994The-structure), Wambule -*no* (Opgenort2004A-Grammar), Bantawa -*nin* (Doornenbal2009A-grammar), Chintang -*niŋ* (Schikowski2012_Morphology). It can be used as a nominal coordinator, functionally similar to English *and* (symmetrical, with nouns of the same status, as defined in Haspelmath2004_overview). An example is given in (43a), a story title of the commonly found pattern ‘X and Y’. Thus, by its very nature, this case marker can be found inside noun phrases, coordinating two nominal heads. The other case markers attach to the coordinate structure as a whole (see (43b)). The marker is phonologically bound to the first component of the coordinate structure.

Examples (43c) and (43d) serve to show that both parts of the coordinate structure contribute features to the person and number marking on the verbs. In (43c) the verb is marked for dual number, determined by the proper noun *qiana* and by the omitted pronoun *ka* ‘I’. In (43d) the first person inclusive verbal marking is triggered by both *niniŋda* and *kaniŋ*.

- (43) a. *suku=nun kithrikpa*
 Suku=COM policeman
 ‘Suku (a girl’s name) and the policeman’ [01_leg_07.143]
- b. *a-ma=nun a-na=ga ce?ya*
 1SG.POSS-mother=COM 1SG.POSS-sister=GEN matter
 ‘the warnings of my mother and sister’ [42_leg_10.051]
- c. *hakhok=ŋa am-me-ŋ-ci-ŋ=ba,*
 later=INS come_over-NPST-EXCL-DU-EXCL=EMPH
qiana=nun am-me-ŋ-ci-ŋ,
 Diana=COM come_overNPST-EXCL-DU-EXCL
asen=ca
 yesterday=ADD
 ‘Later, we will come of course, Diana and I, we will come;
 yesterday (we came), too.’ [36_cvs_06.376]
- d. *la, niniŋda=nun kaniŋ haku*
 alright 2PL=COM 1PL now

cun-i!
wrestle-1PL[INCL;SBJV]
'Well, now let us wrestle!' [39_nrr_08.12]

The comitative is also used to mark peripheral participants that somehow accompany the main participants or that are associated with them (see (44)).

- (44) a. *tabek, kacyak, mina kondarik, caprak*
khukuri_knife, sickle, small spade, spade
nhan chomlaki=nun punḡda=be
and_then split_bamboo=COM jungle=LOC
lab-a-cog-a-ḡ-ci-ḡ
hold-PST-V2.MAKE-PST-EXCL-DU-EXCL
'Carrying khukuri, sickle, spades and split bamboo, we went into the jungle.' (literally: 'made into the jungle')²⁹
[40_leg_08.008]
- b. *ka=nun khe?-ma=na kamnibak*
1SG=COM go-INF[DEONT]=NMLZ.SG friend
'a friend who has to walk with me'

Some frames of verbal argument realization (both intransitive and transitive) require the comitative on their arguments, such as *cekma* 'talk', *tonḡma* 'fit/agree/belong to', *kisi?ma* 'be afraid', *nakma* 'ask' and *incama* 'buy (from)' (see (45)).

- (45) a. *mimik, ka=nun seppa,*
a_little 1SG=COM RESTR.EMPH
u-ppa=nun=go banda,
3SG.POSS-father=COM=TOP closed
n-jeḡ-me-n=na
NEG-talk[3SG]-NPST-NEG=NMLZ.SG
'A little, just with me – with her father, nothing, she does not talk to him.' [36_cvs_06.278]

²⁹ This V2 is only found in this one example so far, and thus, it is not treated in Chapter ?? on complex predicates.

- b. *limbu=ci=ga=nun*
 Limbu_ethnic.group=NSG=GEN=COM
ton-di-me=ppa, eη=ga=go
 agree-V2.GIVE-NPST[3SG]=EMPH 1PL.INCL.POSS=GEN=TOP
 [...] *aru=ga=nun n-don-men*
 [...] other=GEN=COM NEG-agree[3SG]-NPST-NEG
 'It is like the language of the Limbus, our (language). [...]
 It does not fit to the others.' [36_cvs_06.256-58]

The comitative also plays a role in the derivation of some adverbs, as shown in (46) (cf. §??). Furthermore, it is also found in clause linkage (cf. §??).

- (46) *khumdu=nun nam-ma*
 tasty=COM smell-INF
 'to smell tasty'

5.2.3 Further case markers (Group II)

The markers of Group II are quite heterogeneous; they do not define a class as such. They can appear bound to their host or independently, i.e., stressed like a separate word. Their phonological weight is also greater than that of the markers of Group I; all of them are at least disyllabic. The case markers of Group II have a greater flexibility with regard to hosts they can select. Not only nominals are possible, but also adverbials. Some markers of Group II are not attested with nominal complements at all, like *kha?la* 'towards'. Furthermore, a number of the markers of Group II have hybrid word class status; they can also be used as adverbs. Some markers were borrowed into the language from Nepali, like *samma* 'until' or *anusa* 'according to'. Table ?? provides a summary of all Group II markers and their functions, described in detail in the following sections.

5.2.3.1 The direction and manner marker *kha?la*

The directional/manner marker *kha?la* 'towards, in the way of' is not attested with nouns, it only attaches to deictic adverbs. The directional

Table 5.5: Case markers (Group II)

MARKER	FUNCTION
<i>khaʔla</i>	directional, ‘towards’; manner ‘like’
<i>nhaŋto</i>	temporal ablative, ‘since, from X on’
<i>haksan</i>	comparative, ‘compared to’
<i>haʔniŋ</i>	comparative, ‘compared to’
<i>loʔa</i>	equative, similitive, ‘like’
<i>hiŋ</i>	equative (size) ‘as big as’
<i>maʔniŋ</i>	caritive, ‘without’
<i>bahek</i> [NEP]	exclusive, ‘apart from’
<i>samma</i> [NEP]	terminative, ‘until, towards’
<i>anudar</i> [NEP]	‘according to’
<i>lagi</i> [NEP]	benefactive, ‘for’

reading is found when *khaʔla* attaches to demonstrative adverbs typically occurring with motion verbs (see (47)). Etymologically, it is a combination of a demonstrative *kha* with an older allative or directional case marker. Cognates of such a marker are attested in several Kiranti languages: *-tni* in Bantawa (Doornenbal2009A-grammar) and Puma (Sharma2005Case), *-baiʔni* ~ *-ʔni* in Chintang (Schikowski2012_Morphology).

- (47) a. *to=khaʔla ky-a!*
up=towards come_up-IMP
‘Come up!’ [01_leg_07.329]
- b. *ŋkha limbu=ci yo=khaʔla*
those Limbu_person=NSG across=towards
ŋ-khy-a
3PL-go-PST
‘Those Limbus went away (horizontally).’ [22_nrr_05.017]
- c. *nninga=go, mo, mo=khaʔla=ca*
2PL.POSS=TOP down down=towards=ADD
nis-uks-u-ŋ=ha
see-PRF-3.P[PST]-1SG.A=NMLZ.NSG

‘Your (home), below, downwards, I have seen it, too.’³⁰
[28_cvs_04.334]

The manner reading is found when *kha?la* attaches to demonstratives (see (48)).

- (48) a. *ijaŋ bhasa n-jiŋ-ghom-me=ha?*
why language 3PL-learn-V2.ROAM-NPST=NMLZ.NSG
hoŋ=kha?la=maŋ ba?lo!
that_very=like=EMPH EMPH.EXCLA
‘Why do they walk around learning languages? Just like that!’
[28_cvs_04.324]
- b. *nna=kha?la, mamu, i cok-ma=?lo, hamro*
that=like girl what do-INF=EXCLA our
des?
country
‘(It is) like that, what to do, girl, with our country?’
[28_cvs_04.163]

The marker *kha?la* also has a homonymous adverbial counterpart³¹ with a purely manner reading: ‘like this’, e.g., *kha?la om* ‘It is like this.’

5.2.3.2 The temporal ablative marker *nhaŋto*

The marker *nhaŋto* (occasionally also *bhaŋto*) usually attaches to nouns or adverbs with temporal reference and marks the beginning of time intervals, regardless of whether they extend from a point in the past, present or future, as the examples in (49) illustrate. Example (49d) shows that it may also attach to demonstratives. The etymology of this marker is still transparent. It is composed of a demonstrative *na* with an (older) ablative *-haŋ* and the deictic adverb *to* ‘up’, yielding a phrase ‘up from here’. This points towards a conceptualization of time as beginning below and flowing upwards. So far, this is just an educated guess,

³⁰ ‘Downwards’ could be any location outside the Himalayas.

³¹ Adverbial in the sense that it occurs independently, without nominal complements, and in the function of modifying verbs.

supported by the uses of some complex predicates, such as a combination of ‘see’ and ‘bring up’, best translated as ‘having remembered’.

- (49) a. *asen=nhaŋto*
yesterday=TEMP.ABL
‘since yesterday’
- b. *mi wandik=nhaŋto*
a_little later=TEMP.ABL
‘from a bit later on’
- c. *lop=nhaŋto=maŋ*
now=TEMP.ABL=EMPH
‘from now on’ [01_leg_07.030]
- d. *nna=nhaŋto sumphak cillen n-leks-u*
that=TEMP.ABL leaf face_up 3PL.A-turn-3.P[PST]
‘From that (event) on, they turned around the leaf plate to
the proper side.’ [22_nrr_05.132]

This marker is occasionally also found as clause-initial coordinator used similarly to (50), which reflects the historical stage prior to becoming a bound marker. The previous clause is referred to by a demonstrative (not in these, but in plenty of other examples), resulting in a structure *nna, nhaŋto* ‘that, and then upwards’, and eventually the clause-initial coordinator got reanalyzed as requiring a complement of some kind.

- (50) a. *nhaŋto, garo*
and_then wall
n-chenɗ-et-wa=na, to=khaʔla
3PL.A-mason-V2.CARRY.OFF-NPST=NMLZ.SG up=towards
‘And then they mason the wall, upwards.’ [31_mat_01.093]
- b. *nhaŋto phuna=chen*
and_then white=TOP
seg-haks-u-ŋ=hoŋ
choose-V2.SEND-3.P[PST]-1SG.A=SEQ
‘And then, I sorted out the white (bread), and ...’ [40_leg_08.060]

Marginally (in one case, to be precise), a synonymous marker *nhaŋkhe*, paraphrasable as ‘from then on hither’, was found with the same function.

- (51) *nhaŋkhe u-ma heʔniŋ=ca issisi*
 and_then 3SG.POSS-mother when=ADD bad
n-jog-uks-u-n
 NEG-do-PRF-3.P[PST]-NEG
 ‘And then, he never did his mother bad again.’ [01_leg_07.082]

5.2.3.3 The comparative marker *haksan/haʔniŋ*

The two comparative markers *haksan* and *haʔniŋ* mark the standard in comparative and in superlative constructions. They are used interchangeably without any functional difference. Since they are treated in detail in Chapter ??, three examples shall suffice here. Examples (52a) and (52b) show comparative constructions, (52c) shows a superlative construction. The comparative markers can attach to all kinds of hosts, even to verbs. Etymologically they must have been converbal forms, since Yakkha has the converbal and adverbial clause linkage markers *-san* and *=niŋ*, both indicating cotemporality. The structure of the Yakkha comparative markers could be calqued upon the structure of the Nepali comparative marker *bhanda*, which is a converbal form of the verb *bhannu* ‘to say’. The identity of a possible verbal stem *hak* in Yakkha, however, could not be determined. Synchronically, the meaning of ‘compare’ is expressed by a complex verb *themnima*. A likely candidate could be the verbal stem *haks*, which basically means ‘send/send up’, but is also used with the meaning ‘weigh’.

- (52) a. *nda haʔniŋ pak=na?*
 2sg COMPAR be_unripe=NMLZ.SG
 ‘Is he younger than you?’
 b. *heko=ha nwak=ci haksan miyaŋ*
 other=NMLZ.NSG bird=NSG COMPAR a_little
alag (...) sa=na=bu
 different (...) COP.PST=NMLZ.SG=REP
 ‘He was a bit different from the other birds, they say.’

- [21_nrr_04.002]
- c. *ghak* *haʔniŋ* *mi=na* *mima*
 all COMPAR small=NMLZ.SG mouse
 ‘the smallest mouse (of them all)’ [01_leg_07.003]

5.2.3.4 The equative and similative marker *loʔa*

The equative/similative *loʔa* marks the standard of an equation. It can have adverbial (53a) and nominal complements (a numeral in (53b)), even clausal, when they are embedded to verbs of perception or cognition. Example (53c) shows that the resulting equative phrase can be “fed” into a nominalization itself and thus made a referential phrase. The equative/similative marker is cognate to the comitative and adverbial clause linkage marker *-lo ~ lok ~ loʔ* in Belhare (Bickel1993Belhare). The same marker is known as ‘manner suffix’ in Bantawa (Doornenbal2009A-grammar). There is one lexicalized instance of *loʔa*, the adverb *pekloʔa ~ pyakloʔa* ‘usual(ly)’, still morphologically transparent: its literal meaning would be ‘like much/like many’.

- (53) a. *khem* *loʔa*
 before like
 ‘like before’
- b. *kanin* *ka-i-wa=nin* *eko* *loʔa*
 1PL say-1PL-NPST=CTMP one like
 kheps-wa-m
 hear-NPST[3.P]-1PL.A
 ‘When we say it, it sounds the same!’ [36_cvs_06.478]
- c. *khem* *loʔa=na* *mekan!*
 before like=NMLZ.SG NEG.COP.2SG
 ‘You are not like someone from just before!’ (said to someone who was a little tipsy but claimed to come right from work)

In a manner typical for Tibeto-Burman languages, this marker extends its function to clauses.³² In (54) it takes over the function of a comple-

³² See also DeLancey1985_Etymological and Genetti1991From

mentizer.

- (54) *ka luʔ-meʔ-nen-in=ha loʔa cog-a-ni*
 1SG[ERG] tell-NPST-1>2-2PL=NMLZ.NSG like do -IMP-PL.IMP
 ‘Do as I tell you.’ [14_nrr_02.019]

5.2.3.5 The equative marker for size *hiŋ*

The equative case for size is etymologically related to the deictic adverb *khiŋ* (which is etymologically composed of the demonstrative *kha* and *hiŋ*). Attached to a noun phrase that functions as standard of comparison, this case marker indicates that an object is as big as the object referred to by the noun to which *hiŋ* attaches, as shown in (55). In this example, the whole phrase is nominalized and functions as the nominal predicate of a copular clause.

- (55) *m-muk a-lan hiŋ=na (om)*
 2SG.POSS-hand 1SG.POSS-foot as_big_as=NMLZ.SG (COP)
 ‘Your hand is as big as my foot.’

5.2.3.6 The privative marker *maʔniŋ*

The privative *maʔniŋ* is historically complex, similar to *haʔniŋ* above. It is composed of the negative existential copular stem *ma* (in third person singular, zero-marked) and the cotemporal adverbial clause linkage marker *=niŋ* (see (56)). In the same way as we have seen above for *loʔa* already, the privative phrase can be nominalized to serve as a nominal modifier, as shown in (56b).

- (56) a. *i=ŋa cama niʔ-m=ha,*
 what=INS rice cook-INF[DEONT]=NMLZ.NSG
maŋcwa maʔniŋ?
 water without
 ‘How (in what) shall we cook rice, without water?’
 [13_cvs_02.108]
- b. *wariŋba maʔniŋ=ha khyu*
 tomato without=NMLZ.NSG curry_sauce

‘curry sauce without tomatoes in it’

5.2.3.7 Postpositions from Nepali

The benefactive/purposive postposition *lagi* (from Nepali *lāgi*), like in its source language, requires the genitive case. It can attach to proper nouns or to nominalized clauses like the infinitive in (57b). The genitive is, however, also found on purposive infinitival clauses without the postposition (see §??); it might well precede the point in time when *lagi* entered the Yakkha language.

- (57) a. *hoʔi! ak=ka lagi iya=ca tuʔkhi*
 enough! 1SG.POSS=GEN for what=ADD trouble
n-jog-a-n
 NEG-do-IMP-NEG
 ‘No, thanks. Do not bother about me (at all).’
 [01_leg_07.186]
- b. *heʔniŋ-heʔniŋ=go yuncama=le cok-ma*
 when-when=TOP laughter=CTR do-INF[DEONT]
haʔlo
 EXCLA
 ‘Sometimes one just has to joke around, man!’
 [36_cvs_06.263]

Another postposition from Nepali is *anuser* ‘according to’ (from Nepali *anusār*). It is typically found with nominalized clauses (see (58)).

- (58) a. *ka-ya=na anuser*
 say[3SG]-PST=NMLZ.SG according_to
 ‘according to what was said/promised’ [11_nrr_01.012]
- b. *ka nis-u-ŋ=ha anuser*
 1SG[ERG] see-3.P[PST]-1SG.A=NMLZ.NC according_to
 ‘according to what I know/saw’ [25_tra_01.169]

The terminative postposition *samma* is used to specify the endpoint of an event (see (59)). This postposition is also found in clause linkage, in combination with native adverbial subordinators.

- (59) *aniŋ=ga ceʔya hen samma*
 1PL.EXCL.POSS=GEN language now until
man=ha=bu
 NEG.COP=NMLZ.NC=REP
 ‘Our language has not been established until now (they say).’
 [07_sng_01.06]

The exclusive postposition *bahek* ‘apart from’ serves to single out a referent to which the predication made in the sentence does not apply (see (60)).

- (60) *taŋcukulik bahek=chen,*
 pig-tail apart_from=TOP
heŋ-nhak-ni-ma, jammai, kha
 cut-V2.SEND-COMPL-INF[DEONT] all this
ya-muŋ=ca, ghak heŋ-nhaŋ-ma
 mouth-hair=ADD all cut-V2.SEND-INF[DEONT]
 ‘Apart from the pig-tail one has to cut it off, all, this beard too,
 all has to be cut off.’ (context: funeral description)
 [29_cvs_05.058]

In all the postpositions from Nepali, the phonological contrast between open-mid /ʌ/ and open /a/, which is present in the source language, is neutralized to open and long /a/.

5.3 Relational nouns

Yakkha has a class of relational nouns, in which specific meanings like ‘root’ are metaphorically extended to indicate more general spatial relations like ‘under’. Usually, they occur in a possessive construction with the complement noun in the genitive and a possessive prefix attaching to the relational noun, which also hosts a locative case marker, as in (61a) and (61b). Relational nouns expressing spatial relations are a common source for case markers and postpositions in Tibeto-Burman (DeLancey1985_Etymological).

- (61) a. *phakʔaŋluŋ=ga* *u-sam=be*
 Mount_Kumbhakarna=GEN 3SG.POSS-root=LOC
 ‘at the foot of Mount Kumbhakarna’ [18_nrr_03.001]
- b. *caram=ga* *u-lap=pe* *camokla=nun*
 yard=GEN 3SG.POSS-wing=LOC banana=COM
ambibu=ga *u-thap* *ŋ-weʔ-ha*
 mango=GEN 3SG.POSS-plant 3PL-exist[NPST]=NMLZ.NSG

‘At the edge of the yard there are some banana trees and mango trees.’ [01_leg_07.176]

Relational nouns can also be found without the inflectional morphology between complement and relational noun, in a compound-like structure, as in (62a).³³ It is not only the locative but also the ablative which may attach to a relational noun, as shown in (62b). In this particular example, the ablative marking indicates a movement along a trajectory above the table.

- (62) a. *hakhok=ŋa ka*
 later=INS 1SG
cend-a-ky-a-ŋ=hon
 wake_up-PST-V2.COME_UP-PST-1SG=SEQ
so-ŋ=niŋa=go ka luŋkhwak-choŋ=be
 look-1SG=CTMP=TOP 1SG stone-top=LOC
ips-a-masa
 sleep[3SG]-PST-PST-PRF
 ‘Later, when I woke up and looked around, (I realized that) I had been sleeping on a rock.’ [42_leg_10.043]
- b. *chalumma=ŋa phuaba*
 second_born_girl=ERG last_born_boy

³³ The person marking for third person on the main verb here is exceptional, since it refers to a first person participant. The expected regular first person inflection (*ipsamasanŋa*) would be possible as well. We know that such impersonal inflection is an alternative and frequent way to express first person nonsingular patients in Yakkha. This example is, however, the only instance in the corpus where this strategy is used for first person singular subject of an intransitive verb.

tebul-chon=bhan bol lept-u-bi=na
 table-top=ABL ball throw-3.P[PST]-V2.GIVE=NMLZ.SG
 ‘Chalumma threw the ball over the table to Phuaba.’

Table ?? provides a summary and the original lexical nouns that are the bases for each relational noun. In (63), the relational noun is reduplicated, since the relation described is not one of location at the riverside, but one of movement along the river.

Table 5.6: Relational nouns

RELATIONAL NOUN	GLOSS	LEXICAL MEANING
<i>chon ~ chom</i>	above, on, on top of	‘top, summit’
<i>sam</i>	below	‘root’
<i>lum</i>	in, between	‘middle’
<i>yum</i>	next to	‘side’
<i>hon</i>	inside	‘hole’
<i>lap</i>	next to (upper part)	‘wing’
<i>lan</i>	next to (lower part)	‘leg’
<i>heksan</i>	behind, after	‘backside’
<i>ondan</i>	in front of, before	‘frontside’
<i>chuptan</i>	to the right of	‘right side’
<i>pheksan</i>	to the left of	‘left side’

- (63) *honma=ga u-lap-ulap lukt-a-ma*
 river=GEN 3SG.POSS-wing-REDUP run[3SG]-PST-PRF
 ‘He ran along the shore of the river.’ [01_leg_07.216]

The two relational nouns *heksan* and *ondan* can, additionally, occur as adverbs. In the current corpus, they are mainly used adverbially (see (64)). As these examples show, *heksan* and *ondan*, in contrast to the other relational nouns, can also be used with a temporal interpretation.

- (64) a. *n-heksaŋ=be* *cuwa* *ta=ya*
 2SG.POSS-behind=LOC beer come[3SG;PST]=NMLZ.NSG
 ‘Some beer has arrived behind you.’
 b. *tabhaŋ* *panc* *hapta* *heksaŋ*
 son-in-law five week behind
ta-meʔ=na
 come[3SG]-NPST=NMLZ.SG
 ‘The son-in-law comes five weeks later.’
 c. *heksaŋ* *so-ŋ-ci-ŋ* *uŋci*
 later look[PST]-1SG.A-3NSG.P-1SG.A 3NSG
n-nis-u-n-ci-ŋa-n
 NEG-see-3.P[PST]-NEG-3NSG.P-1SG.A-NEG
 ‘Later, when I looked for them, I did not see them.’
- [41 leg 09.050]

Furthermore, there are spatial adpositions, presenting an orientation system that is based on the uphill/downhill distinction. They are treated in §??, together with the other word classes that are based on this topography-based system.

Yakkha does not have a perlocative/mediative *lam* or *lamma* case or postposition which is found in many of the surrounding languages.³⁴ There is also no postposition for the relation ‘around’. This can only be expressed adverbially with *ighurum* (65).³⁵

- (65) *mi em-saŋ huŋ-ca-saŋ ighurum*
 fire get_warm-SIM bask-V2.EAT-SIM around
yuŋ-i-misi-ŋ
 sit-1PL-PRF.PST-EXCL
 '[...], we had sat around the fire, getting warm.' [40_leg_08.033]

³⁴ E.g., in Chintang (Schikowski2012_Morphology); Belhare (Bickel2003Belhare); Limbu (Driem1987A-grammar), Athpare, Yampahu, Camling, Thulung (Ebert2003Kiranti).

³⁵ This adverb has its origin in a noun *ighurum* ‘round’, which still exists synchronically in Yakkha.

5.4 The structure of the noun phrase

The basic function of noun phrases is to establish reference. They occur as arguments of verbs, as complements of postpositions and as predicates in copular constructions. They may host morphology such as case and number markers and various discourse particles. Noun phrases are potentially complex; both coordinate and embedded structures can be found inside the noun phrase. Noun phrases can be headed by a lexical noun or by a pronoun, a demonstrative, a numeral, a quantifier or an adjective. Noun phrases that are not headed by a lexical noun are more restricted in the kind of modifying material they may contain. Noun phrases can also be headless, consisting just of some non-nominal material and a nominalizing device. Hence, no element in a Yakkha noun phrase is obligatory.

The default structure for headed noun phrases is head-final. Deviations from this pattern reflect discourse requirements, as will be discussed below. In noun phrases that are headed by personal pronouns or demonstratives, modifiers follow the head. Noun phrases with more than two modifying elements are exceedingly rare.

5.4.1 Possessive phrases

Possessive phrases minimally consist of a noun (referring to the possessee) which is marked by a possessive prefix (indexing the possessor, see (66a)). If there is an overt possessor, marked by the genitive, the possessive prefix is generally optional (see (66b)), except for inherently possessed nouns such as core family terms and some other nouns implying part-whole relations. The possessive prefix may, however, also co-occur with a possessive pronoun, but only when the possessor has singular reference (see unacceptable (66c)). Recursive embedding is possible as well, but not found beyond two levels of embedding in the currently available data (66e).

- (66) a. (*ak=ka*) *a-cya=ci*
 (1SG.POSS=GEN) 1SG.POSS-child=NSG
 ‘my children’ [21 nrr 04.027]

- b. *ghak=ka dʌŋgak=ci*
all=GEN stick=NSG
'everyone's sticks' [04_leg_03.024]
- c. *eŋ=ga (*en-)na-nuncha=ci*
1PL.INCL.POSS=GEN (*1PL.INC.POSS-)eZ-yZ=NSG
'our sisters' [41_leg_09.015]
- d. *beuli=ga u-kamnibak*
bride=GEN 3SG.POSS-friend
'a friend of the bride' [25_tra_01.089]
- e. *eko khokpu=ga u-thap=ka*
one fig=GEN 3SG.POSS-plant=GEN
u-sam=be
3SG.POSS-root=LOC
'below a fig tree' [42_leg_10.015]

5.4.2 Other modifiers: adjectives, numerals, quantifiers, demonstratives

Below, examples with numerals (see (67a)), demonstratives (see (67b) and (67c)), adjectives (see (67d) and (67e)) are shown. The examples also illustrate nominal morphology such as case markers, attaching to the rightmost element of the phrase, and optionally followed by discourse particles like the additive focus marker *=ca* or the restrictive focus marker *=se*.

- (67) a. *eko a-muk=phan*
one 1SG.POSS-hand=ABL
'from one of my hands' [40_leg_08.022]
- b. *na tumna=ŋa*
this elder=ERG
'this elder one' [40_leg_08.055]
- c. *ŋkha u-hiru?wa=ci*
those 3SG.POSS-intestine=NSG
'those intestines' [40_leg_08.039]
- d. *onek=ha ce?ya=ca*
joking=NMLZ.NSG matter=ADD

- ‘jokes, too’ [40_leg_08.057]
- e. *heko=na* *whak=pe*
 other=NMLZ.SG branch=LOC
 ‘on another branch’ [42_leg_10.032]
- f. *honna=ga=se* *dangak*
 that_very=GEN=RESTR stick
 ‘only that person’s stick’ [04_leg_03.025]

When the head noun is a pronoun or a demonstrative, the modifier is usually a quantifier or a numeral, and it follows the head. Occasionally other material elaborating on the identity of the pronominal referent is found as well, as in (68d).

- (68) a. *iya-ia* *nis-u-ga=na,* *ŋkha ghak*
 what-what see-3.P[PST]-2.A=NMLZ.SG that all
yok-met-a-ŋ=eba
 search-CAUS-IMP-1SG.P=POL.IMP
 ‘Please tell me everything you saw.’ [19_pea_01.005]
- b. *kaniŋ ghak chups-i-ŋ=hoŋ*
 1PL all gather-1PL-EXCL=SEQ
 ‘As we all had gathered, ...’ [41_leg_09.054]
- c. *uŋci hip-paŋ*
 3NSG two-CLF.HUM
 ‘the two of them’
- d. *kaniŋ yakkhaba* *yakkhama=ci*
 1PL Yakkha_man Yakkha_woman=NSG
 ‘we Yakkha people’

5.4.3 Relative clauses

In (69) and (70), examples of relative clauses are given, constructed with the nominalizers *-khuba* and *=na/=ha* (treated in Chapter ??). They can be of considerable length and internal complexity. In (69c), three coordinated relative clauses serve to modify the same head noun, *whaŋsa* ‘steam’.³⁶ They are joined by apposition and a comitative between the

³⁶ Enumerations of coordinated items, with the comitative marker functioning as a coordinator (between the last two items if there are more than two), are common

latter two relative clauses. This pattern of coordination is common. In (69d), the relative clause is preceded by an adjective and contains a complement-taking verb with an embedded infinitive.

- (69) a. *ka haksan tum=na yapmi*
 1SG COMPAR elder=NMLZ.SG person
 ‘a person senior to me’ [40_leg_08.078]
- b. *kha?la otesran=ha pachem=ci!*
 like_this reverse=NMLZ.NSG young_boy=NSG
 ‘Such naughty boys!’ [40_leg_08.075]
- c. *caleppa leps-a=ha,*
 bread deep_fry[3SG]-PST=NMLZ.NC
ni-ya=ha macchi=nun khi
 fry[3SG]-PST=NMLZ.NC chili_sauce=COM yam
whanɔd=ha whanɔsa
 boil[3SG;PST]=NMLZ.NC steam
 ‘the steam of deep-fried bread, fried chili and boiled yams’³⁷
 [40_leg_08.046]
- d. *issisi, khem-ma=i me-ya-m=ha ce?ya*
 ugly hear-INF=FOC NEG-be_able-INF=NMLZ.NC talk
 ‘ugly talk that one cannot listen to’ [36_cvs_06.600]

Headless noun phrases, identical to headless relative clauses, are presented in (70).

- (70) a. *khi khon-khuba=ci*
 yam dig-NMLZ=NSG
 ‘people digging yam’ [40_leg_08.009]
- b. *to=na*
 up=NMLZ.SG
 ‘the upper one’

in Yakkha. These relative clauses are not embedded into one another; there are three different smells (or ‘steams’), not the smell of yams that are cooked together with fried bread and sauce, which also would not make sense semantically, since *whanɔma* can only refer to boiling something solid in water.

³⁷ The lexeme *macchi* is a loan from the Nepali source word *marej* ‘pepper’. In Yakkha, it refers to chili peppers, but also to hot pickles and sauces.

Some nouns take clausal complements (see §??).

5.4.4 Coordination

If nouns are coordinated in a noun phrase, they can either be juxtaposed (see (71a)), or, by means of the comitative case marker, be attached to the penultimate noun (see (71b)). The comitative may also coordinate adjectives. Example (71c) shows again that several levels of embedding are possible: the coordinated nouns may themselves be modified and these modifiers may also be coordinated by =*nun*. Apposition is used comparatively often; instead of using some more general term, one often finds long enumerations of things. This could be a stylistic device to create suspense in narratives, as exemplified in (71d).

- (71) a. *yarepman*, *liklinphun* *nam-ma=niη=ca*
 fern, mugwort smell-INF=CTMP=ADD
ibibi *sokma* *ta-ya=na*
 very_much breath come[3SG]-PST=NMLZ.SG
 ‘When we sniffed at fern and mugwort plants, we regained
 quite some energy.’ [40_leg_08.018]
- b. *paŋkhi=nun* *puŋdakhi*
 cultivated_yam=COM wild_yam
 ‘cultivated yam and wild yam’ [40_leg_08.025]
- c. *paŋ=be* *phu=ha=nun* *makhur=ha*
 house=LOC white=NMLZ.NC=COM black=NMLZ.NC
caleppa, *macchi*, *khicalek=nun* *cuwa* *py-a*
 bread, pickles, rice_dish=COM beer give-PST[1.P]

 ‘At home, they gave us white and black bread, pickles, khichadi
 and beer.’ [40_leg_08.051]
- d. *uŋci=ŋa* *tabek*, *siŋ*, *phendik*, *lom-ma*
 3NSG=ERG khukuri wood axe take_out-INF
n-darokt-u
 3PL.A-start-3.P[PST]
 ‘They started to take out khukuri knives, wooden clubs and

axes’

[41_leg_09.038]

Modifying material, too, can be coordinated by juxtaposition. Interestingly, when two sub-compounds are in apposition, the head noun of the first compound can be omitted, as shown in (72c).

- (72) a. *phu-nuncha*
 elder_brother-younger_sibling
na-nuncha=be *pak=na*
 elder_sister-younger_sibling=LOC be_unripe=NMLZ.SG
 ‘the youngest among the brothers and sisters’
 [40_leg_08.052]
- b. *honkha?la* *khi-ma=ha*
 like_that_very fight-INF=NMLZ.NC
tu-ma=ha *ce?ya*
 wrestle-INF=NMLZ.NC matter
 ‘the issue of fighting and wrestling like just told’
 [41_leg_09.072]
- c. *tondigangma* *linkhacama-punda=ci*
 a_forest_name a_forest_name-forest=NSG
 ‘the Tondigangma and Linkhacama forests’ [40_leg_08.011]

5.4.5 Combinatory possibilities

Concerning the combinatory potential inside the noun phrase, there seem to be only few restrictions. The average noun phrase, however, shows maximally two modifying elements, as illustrated below: NUM-ADJ-N in (73a), DEM-NUM-N in (73b), DEM-ADJ-N in (73c), POSS-NUM-N in (73d), POSS-DEM-N in (73e), DEM-QUANT in (73f). Other possibilities found are POSS-ADJ-N, ADJ-RC-N, NUM-RC-N, DEM-RC-N, POSS-NUM-N. The only recognizable tendency found was that of putting demonstratives first, although this is not a categorical rule.

- (73) a. *eko maqa ti?wa*
 one big pheasant
 ‘one big pheasant’
 [40_leg_08.036]

- b. *na eko lunxhwak=chen*
 this one stone=TOP
 ‘as for this one stone’ [37_nrr_07.007]
- c. *na makhruk=na caleppa*
 this black=NMLZ.SG bread
 ‘this black bread’ [40_leg_08.053]
- d. *chubuk=ka hic=ci caleppa*
 ashes=GEN two=NSG bread
 ‘two breads of ashes’ [40_leg_08.071]
- e. *paghyam=ga nkha sala*
 old_man=GEN that talk
 ‘that talk of the old man’ [40_leg_08.076]
- f. *kha ghak casak*
 this all uncooked_rice
 ‘all this uncooked rice’ [01_leg_07.016]

When the noun phrase is headed by a pronoun, only quantifiers or numeral modifiers are possible, and they follow the head, as has been shown above in example ??.

From these possibilities, the following (idealized) schema for a maximal noun phrase can be inferred (see Figure ??). As it was said above, the noun phrase is rather unrestricted, so that it is highly conceivable that noun phrases with an internal structure deviating from this schema can be found.

DEM	POSS	NUM	ADJ	RC	N	
					PRON/ DEM	NUM/ QUANT

Figure 5.1: Schema of the maximal noun phrase

5.4.6 Information structure inside the noun phrase

When the order of head and attribute is reversed in a noun phrase, one can notice an increase in assertiveness to the right end of the phrase. In (74a), for instance, an assertion is made about an old man who has the

habit of making jokes, a fact which sets the scene for what is to come: the old man plays a prank at the protagonist of the story. In (74b), the asserted information is not so much the fact that a market takes place, because the narrative is temporally embedded in a season known for events such as markets and fun fairs, but rather the fact that it is a comparatively big market. Modifying material to the right of the head noun is restricted to one element (as in Belhare, see Bickel2003Belhare).

- (74) a. *nna ighurum=be a-pum*
 that round=LOC 1SG.POSS-grandfather
laktange=ca wa-ya=na
 humorous=ADD exist[3SG]-PST=NMLZ.SG
 ‘In that round, a humorous old man was there, too.’
 [40_leg_08.034]
- b. *inimma manpha ma=na pog-a-ma*
 market quite big=NMLZ.SG rise[3SG]-PST-PRF
 ‘Quite a big market took place.’³⁸ [01_leg_07.145]

Elements inside the noun phrase can also be focussed on or topicalized, as the following examples show. In (75a) *akkago* is a contrastive topic, in a (hypothetical) argument where one person brags about how many friends he has in contrast to the other person. In (75b), there is a contrastive focus marker inside the noun phrase, added because the assertion is made in contrast to a presupposition claiming that the opposite be true.

- (75) a. *ak=ka=go ibebe=ha ghak*
 1SG.POSS=GEN=TOP everywhere=NMLZ.NSG all
kamnibak=ci kha?la=hon
 friend=NSG like_this=SEQ
η-wai?=ya=ci
 3PL-exist[NPST]=NMLZ.NSG=NSG
 ‘As for mine, I have friends everywhere, like this.’
 [36_cvs_06.355]

³⁸ The noun *inimma* is a neologism and not widely in use.

- b. *na=go aniŋ=ga=le kham, nniŋda*
 this=TOP 1PL.EXCL.POSS=GEN=CTR ground 2PL[ERG]
nhe wa-ma n-dokt-wa-m-ga-n=ha
 here live-INF NEG-get-NPST-2PL.A-2-NEG=NMLZ.NSG
 'This is our land, you will not get the chance to live here.'
[22_nrr_05.012]

6 Adjectives and adverbs

Adjectives are lexical items specifying some property of a referent, while adverbs specify characteristics of an event such as cause, degree and manner, and ground it in space and time. They are treated in one chapter because they are often derived from the same roots, mostly of verbal origin.

The number of lexical adjectives and adverbs, i.e. those that cannot be traced back to verbal stems, is rather small. Nevertheless, adjectives and adverbs show some characteristics that motivate a separate lexical class. Most prominently, these are ideophonic patterns and the morphological processes of reduplication and triplication, which are highly productive in this class, but only marginally found in other word classes. The derivational morphology attached to the mostly verbal bases determines which structural position in the clause they will occupy, and hence, whether they have adjectival or adverbial function.

This chapter is structured as follows: adjectives are treated in §??. Comparative and equative constructions and the expression of degree are treated in §??. The derivations leading to the various types of adverbs are the topic of in §??. Reduplication, triplication and ideophonic patterns are so rich that they deserve their own section (§??).

Adjectives and adverbs that are employed for spatial orientation, involving a topography-based orientation system, will be discussed in Chapter ??.

6.1 Adjectives

6.1.1 Kinds of adjectives

The function of adjectives is the modification of nouns, either inside the noun phrase or as predicates of copular clauses. Many adjectives

are based on verbal stems historically, but not all of these stems behave like full-fledged verbs synchronically, for instance in not showing the full range of inflectional possibilities that are known from verbs.

The major strategy for the derivation of adjectives is attaching the nominalizers =*na* (when the head noun has singular number) and =*ha* ~ =*ya* (when the head noun has nonsingular number or non-countable reference) to verbal roots, which results in a minimal relative clause (see (1a) and (1b), and Chapter ??). The bases of adjectives are not necessarily verbs, however. These nominalizers can link any modifying material to a noun, regardless of its word class (see (1c)). This example also shows that adjectives may head noun phrases, like minimal headless relative clauses. Such headless relative clauses are different from lexical nouns; case and number marking are allowed on them, but possessive marking is restricted to lexical nouns.

- (1) a. *ci=ha* *maŋcwa*
 get_cold=NMLZ.NC water
 ‘cold water’ (verbal: *maŋcwa cisabhya* ‘The water got cold.’)
 b. *haŋ=ha* *macchi*
 be_spicy=NMLZ.NC pickles
 ‘hot pickles’
 c. *nna* *cancan*(=na)=bhaŋ*
 that tall*(=NMLZ.SG)=ABL
 ‘from that tall one’ (referring to a rock) [38_nrr_07.040]

Some adjectives look like lexicalized inflected transitive verbs, like *cat-tuna*, meaning ‘fat/strong’ (no verbal root of this form attested) or the adjective in (2).¹

- (2) *cend-u=na* *a-na*
 wake_up-3.P[PST]=NMLZ.NSG 1SG.POSS-eZ
 ‘my witty elder sister’ [40_leg_08.057]

Not all adjectival bases are synchronically found as verbs, though they show the typical augmented structure of a verbal stem. Some ad-

¹ The example also illustrates how the lexical meaning of ‘be awake’ has been extended metaphorically to mean ‘witty, sprightly’.

jectives show hybrid behavior, illustrating their verbal origin. For instance, *khumdu* ‘tasty’ does not have a corresponding verb with the citation form *khumma*. Yet, the adjective can be inflected for number and negation like a verb. Person and TAM marking are not possible though.² The same behavior is found for *ngolemninna* ‘not smooth’, *llininna* ‘not heavy’.

- (3) a. *khumdu=ha caleppa*
 tasty=NMLZ.NC bread
 ‘tasty bread’
 b. *kha cuwa η-khumdi-n=ha!*
 this beer NEG-tasty-NEG=NMLZ.NC
 ‘This beer is not tasty!’

Some bases with unclear origin are *heko* ‘other’, *ucun* ‘good’ and *mam* ‘big’.

- (4) a. *mi=na khesup*
 small=NMLZ.SG bag
 ‘a/the small bag’
 b. *māḍa luṅkhwak*
 huge[NMLZ.SG] stone
 ‘a/the huge rock’³

There are only very few adjectives that do not take the nominalizers *=na* and *=ha*. Another nominalizer, *-pa*, is found lexicalized in *ulippa* ‘old’. Other adjectives appearing without prior nominalization are *maṇḍu* ‘far’ and *upunṅe* ‘free’. Lexemes with initial *u-* are occasionally found among adjectives, but more frequently so in adverbs. They originate from obligatorily possessed nouns (see §??).

Many roots can serve as adjectival or as adverbial bases (see also §??). A common marker for adverbial derivation is the comitative *=nuṅ* (also functioning as nominal case marker). Compare the use of *cattu* in (5a)

² The affirmative forms always display *-u*, while the negative forms always display *-i*.

³ This adjective has undergone a sound change: the nonsingular form is *mamha*, but the singular form became *māḍa*, as a result of former **mamna*.

and (5b).

- (5) a. *cattu=na* *pik* *apt-u!*
strong=NMLZ.SG cow bring_across-3.P[IMP]
'Bring a fat/strong cow!'
- b. *ka* *tonday* *um-me?-nen,* *nda*
1SG[ERG] from_above pull-NPST-1>2 2SG
cattu=nun *lab-u-g=hoŋ* *tokha?la*
strong=COM hold-3.P[IMP]-2.A=SEQ upwards
ky-a
come_up-IMP
'I will pull you up, grab it firmly and come up!'
- [01 leg 07.329]

6.1.2 Color terms

The system of Yakkha color terms⁴ is worth mentioning because it only has four basic color terms, with a privative distinction of *phamna* ‘red’ and *phimna* ‘non-red’, in addition to the two terms at both ends of a monochrome lightness-scale, *makhurna* ‘black’ and *phuna* ‘white’. Such an economical system is rather rare crosslinguistically, but the prominence of red conforms to the distributional restrictions discovered in the seminal study of Berlinetal1969Basic

- All languages contain terms for white and black.
- If a language contains three terms, then it contains a term for red.
- If a language contains four terms, then it contains a term for yellow or green, but not both.

Via several derivations and combinations of the terms for red and non-red with the terms for black and white, one arrives at eleven color terms, shown in Table ?? (in their singular forms with $=na$). The term *phamna* comprises red, brown red and orange, and the term *phimna*

⁴ The following discussion of color terms relies on the natural stimuli in the environment, and on my observations of natural speech.

covers everything non-red, from yellow over green to blue. There is another word *phiriryayna* for ‘yellow’, but it is only used for food items, and could be derived from the same root as *phimna*. Nowadays, a Nepali loan for ‘yellow’ has entered the language, replacing *phimna* in this usage: *besare?na*, derived from Nepali *besār* ‘turmeric’. The monochrome terms can be used to specify the color terms with regard to their brightness or darkness, e.g. *maklup-maklupna phimna* for ‘dark blue, dark green’, or *maklup-maklupna phamna* for ‘dark red, bordeaux red’.

Table 6.1: Color terms

STEM	GLOSS
<i>phamna</i>	‘red’
<i>phimna</i>	‘(yellow), green, blue’
<i>phuna</i>	‘white’
<i>makhurna</i>	‘black’
<i>phalik-phalikna</i>	‘reddish, pink, violet (dark and light shades)’
<i>phi?lik-phi?liyna</i>	‘greenish, blueish (sky blue, petrol, light green)’
<i>phiriryayna</i>	‘yellow (food)’
<i>besare?na</i> [NEP]	‘yellow’
<i>phutingirik</i>	‘bright white’
<i>phutlek-phutlekna</i>	‘light grey, light yellow, light pink, beige’
<i>maklup-maklupna</i>	‘dark brown/grey/blue/green/red’

In order to distinguish the colors on the large scale of what is covered by *phimna*, further modifications or comparisons can be made (see (6)).

- (6) a. *sumphak lo?a=na phim=na*
 leaf like=NMLZ.SG non-red=NMLZ.SG
 ‘as green as a leaf’
- b. *besar lo?a=na phim=na*
 turmeric like=NMLZ.SG non-red=NMLZ.SG
 ‘as yellow as turmeric’
- c. *massi lo?a=na phim=na*
 ink like=NMLZ.SG non-red=NMLZ.SG
 ‘as blue as ink’

It is very likely that the bases of the color terms are also verbs historically. (Doornenbal2009A-grammar) mentions a verb *makma* ‘be dark’ for Bantawa, which must be cognate to *makhurna* ‘black’ in Yakkha. Yakkha has a verbal stem *phut* referring to the process of becoming white, which has only been found in connection with hair so far. The syllables *-lik* and *-lek* occurring in the derivations are also known as lexical diminutives and from the derivation of adverbs. In addition to color terms, there are the lexemes *om(na)* ‘bright, light’, *kuyum(na)* ‘dark’ and *chyanchyan(na)* ‘transparent’.

6.1.3 Adjectives in attributive and in predicative function

In attributive function, the adjectives always appear in their nominalized form (i.e. as relative clauses), apart from the few exceptions mentioned above.

- (7) a. *su=ha* *cuwa*
 be_sour=NMLZ.NC beer
 ‘sour beer’
 b. *lag=ha* *nasa=ci*
 be_salty=NMLZ.NSG fish=NSG
 ‘the salty fish’

In predicative function in copular clauses, some adjectives may appear simply in non-nominalized form. Compare the adnominal and predicative functions of *cancan* ‘high’ and *ucun* ‘good/nice’ in (8).

- (8) a. *nna cancan=na lunxhwak*
 that high=NMLZ.SG rock
 ‘this high rock’ [38_nrr_07.044]
 b. *nna dewan-dhunga bayna lunxhwak sahro cancan*
 that Dewan-stone called rock very high
 sa-ma=na
 COP.PST[3SG]-PRF=NMLZ.SG
 ‘That rock called Dewan stone was very high.’
 [38_nrr_07.039]

- c. *ucun=na* *paŋ*
 good=NMLZ.SG house
 ‘a nice house’
- d. *purba* *patti* *dailo* *yur-ma=niŋ* *ucun*
 east side door put-INF=CTMP good
n-leŋ-me-n
 NEG-become[3SG]-NPST-NEG
 ‘If they (the Linkha clan members) put the door to the east,
 it will not be good.’ [11_nrr_01.016]

Other adjectives have to appear in nominalized form in the copular predicate, too. The nominalizers cannot be omitted in (9). While the base *mi* from (9a) is attested independently as a degree particle ‘a little’, the base *heko* is not attested independently.

- (9) a. *nhaŋ=go* *lambu=ca=le* *mi=na*
 and_then=TOP road=ADD=CTR small=NMLZ.SG
leŋ-d-eŋ=na
 become-V2.GIVE-NPST[3SG]=NMLZ.SG
 ‘And then, the road, too, becomes narrow (unexpectedly)!’
 [28_cvs_04.011]
- b. *kaniŋ* *haksan* *heko=na* *om*
 1PL COMPAR other=NMLZ.SG COP
 ‘He is different from us.’ [21_nrr_04.009]
- c. *uŋci=be=ca* *niŋwa* *heko=na*
 3NSG=LOC=ADD mind other=NMLZ.SG
leks-a=ha,
 become[3SG]-PST=NMLZ.NC
 ‘They also changed their mind.’ [41_leg_09.068]

6.2 Comparison, equation and degree

6.2.1 Degree

Adjectives can be modified by degree adverbs like *tuknuŋ* ‘completely’, *pyak* ‘a lot’, *mi/mimik/miyaŋ* ‘a little’, a deictic series of *khiŋ*, *ŋkhiŋ* and

hoŋkhiŋ ('this much', 'that much', 'as much as mentioned before'). Most of them are not restricted to adjectives, but may also be used with nouns or verbs (see Chapter ?? for an overview). Furthermore, there are some Nepali loans like *sahro* or *ekdam*, both best rendered as 'very'. In (10a), the interrogative *ikhiŋ* 'how much' is used in an exclamative utterance.

- (10) a. *pyak cancan, ikhiŋ cancan!*
 very high, how_much high
 '(It was) very high, how high!' [38_nrr_07.039]
 b. *uŋ=ci=go miyaŋ mam=ha n-sa=ba*
 3NSG=TOP a_little big=NMLZ.NSG 3PL-COP.PST=EMPH

'They were a little older (than me).' [13_cvs_02.051]

There is no grammatical means to mark the excessive in Yakkha, which means that there is no regular way of stating that some property is beyond a certain tolerable measure, as expressed by the English particle *too*. Excessiveness is expressed by the quantifiers *pyak* '(very) much' or *tuknuŋ* 'completely', *ibebe* '(very/too) much' and consequently it is not possible in Yakkha to contrast 'very much' and 'too much'. Some adjectives have lexicalized the notion of excessiveness, all from the domain of taste so far: *khikcok* 'quite bitter', *lakcok* 'quite salty', *limcok* 'quite sweet'. Although it is always the same morpheme *-cok* that is involved, it is restricted to a very small semantic domain (at least according to the current data set), and thus it lacks the productivity that would be expected of a grammatical marker.

6.2.2 The equative

Equation is expressed by attaching the equative case *loʔa* 'like' to the standard of comparison (see (11)). The marker *-lo ~ lok ~ loʔ* is also known from Belhare as a comitative and an adverbial clause linkage marker (Bickel1993Belhare) and as 'manner suffix' (deriving manner adverbs) from Bantawa (Doornenbal2009A-grammar). In Yakkha, these functions are covered by the comitative marker *=nuŋ*. The equative *loʔa* may also be employed in complement clauses and equative clauses

(‘seem like [proposition]’, ‘do as told/do as if [proposition]’).

- (11) a. *gumthali loʔa*
 swallow like
 ‘like a swallow’
 b. *anar loʔa et-u-η=ha*
 pomegranate like perceive-3.P.PST-1SG=NMLZ.NSG
 ‘It seemed like pomegranate to me.’ [19_pea_01.011]

If properties are compared, the same structure is employed (see (12) and §?? for examples). The comparee may additionally be marked by an additive focus marker.

- (12) a. *na loʔa nna=ca māḍa*
 this like that=ADD big
 ‘That one is as big as this one.’
 b. *phuama chalumma loʔa kenje?=na*
 last_born_girl second_born_girl like tall=NMLZ.SG
 ‘Phuama is as tall as Chalumma.’⁵

The following example shows that the resulting postpositional phrase may also be nominalized, yielding a headed relative clause in (13a), and a headless relative clause in (13b).

- (13) a. *lupluŋ loʔa=na luŋdhaŋ=be*
 den like=NMLZ.SG cave=LOC
 ‘in a cave like a den’ [22_nrr_05.095]
 b. *u-ma loʔa=na*
 3SG.POSS-mother like=NMLZ.SG
sa=na=i
 COP.PST[3SG]=NMLZ.SG=EMPH
 ‘It was like a female.’ [19_pea_01.079]

The comparee is hardly ever expressed overtly in natural discourse. The following two examples were found in a narrative (14). Since comparees

⁵ Terms based on birth rank are commonly used to address/refer to people, also outside the family context.

have a strong tendency to be topical, they mostly precede the standard of comparison.

- (14) a. *hau, kha=go, eŋ=ga yapmi*
 EXCLA these=TOP 1INCL.POSS=GEN person
lo?a=ha=ci=ca
 like=NMLZ.NSG=NSG=ADD
 ‘Oh, these guys, they look like our people, too.’
 [22_nrr_05.044]
- b. *ŋkha=ci=go kaniŋ=nun sahro toŋ-khuba lo?a*
 those=NSG=TOP 1PL=COM very fit-NMLZ like
men=ha=ci
 NEG.COP=NMLZ.NSG=NSG
 ‘As for those (guys), they do not seem particularly similar
 to us!’
 [22_nrr_07.046]

6.2.3 The comparative and the superlative

The comparative and the superlative are covered by a construction in which either *ha?niŋ* or *haksan* have to be attached to the standard of comparison, which is a noun or a pronoun in the majority of cases (see (15)). Both comparative markers can be used interchangeably. The parameter of comparison does not receive any comparative marking; it appears in its basic form. Both markers have their origin in a converbal form (see also Chapter ??).

- (15) a. *heko=ha=ci=ga ha?niŋ pharak*
 other=NMLZ.NSG=NSG=GEN COMPAR different
 ‘different from the others people’s (language)’
- b. *heko=ha nwak=ci haksan miyan alag*
 otherNMLZ.NSG bird=NSG COMPAR a_little different
 [...] *sa=na=bu*
 [...] COP.PST[3SG]=NMLZ.SG=REP
 ‘He was a bit different from the other birds, they say.’
 [21_nrr_04.002]

Often, the parameter of comparison is not expressed by an adjective, but by an inflected verb (see (16)). Not only stative or ingressive-stative verbs are possible, as (16b) with an embedded clause clearly shows.

- (16) a. *ka uŋ haʔniŋ tum-ŋa=na*
 1SG 3SG COMPAR be_ripe-1SG=NMLZ.SG
 ‘I am older than he is.’
 b. *ka nda haʔniŋ lam-ma*
 1SG 2SG COMPAR walk-INF
ya-me-ŋ=na
 be_able-NPST-1SG=NMLZ.SG
 ‘I can walk (better/more) than you.’ (Lit.: ‘Compared to you, I can walk.’)

The standard of comparison may also be an adverb, as in (17).

- (17) *u-laŋ=ci encho haʔniŋ*
 3SG.POSS-leg=NSG some_time_ago COMPAR
n-sas-a-ma
 3PL-COP.PST-PST-PRF
 ‘Her legs got stronger than last time.’ (Lit.: ‘They became (something), compared to the last time.’)

In the superlative, the standard of comparison is always the exhaustive quantifier *ghak* ‘all’ (18).

- (18) a. *ghak haʔniŋ mi=na mima*
 all COMPAR small=NMLZ.SG mouse
 ‘the smallest mouse’ [01_leg_07.003]
 b. *ghak haksan tum=na paŋ*
 all COMPAR old=NMLZ.SG house
 ‘the oldest house’ [27_nrr_06.039]

6.3 Adverbs

Adverbs cover a wide range of functions, from grounding an event in time and space to specifying its manner, intensity, cause and other char-

acteristics of an event. Adverbs in Yakkha can be grouped as follows:

- manner adverbs derived by the comitative =*nun*
- temporal adverbs, mostly derived by the clause linkage marker =*nin*
- adverbs originating from obligatorily possessed nouns
- adverbs derived by -*lik* ~ -*lek* ~ -*rik*
- marginal derivations by -*lən* and -*ci(k)*
- non-derived adverbs
- adverbs based on reduplication, triplication and ideophones (§??)
- adverbs used in spatial orientation, most of them embedded in a system of topography-based orientation (see Chapter ??)

The most common base for these derivations are verbal roots (most of them attested synchronically), but other bases, such as demonstratives, are possible as well. Some bases do not exist as independent words, so that their word class and independent semantics cannot be reliably established.

6.3.1 Manner adverbs derived by the comitative =*nun*

The major strategy to derive manner adverbs is attaching the comitative case clitic =*nun* to roots of verbs with stative or ingressive-stative semantics (commonly both, which is evident from their interaction with tense-aspect morphology). The functions of the comitative marker range from nominal case marking to marking subordinate clauses, so that this type of adverb is strictly speaking a minimal adverbial clause.

Table ?? provides some examples of this adverbial derivation. The same roots can be turned into adjectives via the nominalizers =*na* and =*ha* (see (19), further examples in §??).⁶ One adverb that was derived by the comitative, namely *tuknun* (hurt=COM) has further developed into a degree marker with the meaning ‘completely’.

⁶ Other Kiranti languages, e.g. Bantawa, Athpare, Chamling and Belhare, use the

Table 6.2: Manner adverbs derived by =*nun*

VERBAL ROOT	ADVERB
<i>chak</i> ‘be/get hard/difficult’	<i>chaknun</i> ‘hard, difficult’
<i>cis</i> ‘be/get cold’	<i>cinun</i> ‘feeling cold’
<i>khikt</i> ‘be/get bitter’	<i>khiknun</i> ‘tasting bitter’
<i>li</i> ‘be/get heavy’	<i>linun</i> ‘heavily’
<i>limd</i> ‘be/get sweet’	<i>limnun</i> ‘tasting sweet’
<i>lakt</i> ‘be/get salty’	<i>laknun</i> ‘tasting salty’
<i>nek</i> ‘be/get soft’	<i>neknun</i> ‘softly, gently’
<i>nu</i> ‘be/get well’	<i>nunun</i> ‘well, healthy’
<i>tuk</i> ‘hurt’	<i>tuknun</i> ‘painfully’ ~ ‘completely’

- (19) a. *khun-khe?-ma=nin*
 carry_on_back-V2.CARRY.OFF-INF=CTMP
li-nun=ca *n-leŋ-me-n*
 be_heavy=COM=ADD NEG-become[3SG]-NPST-NEG
 ‘It will not get heavy when we carry it, too.’ [01_leg_07.044]
- b. *li=na* *babu*
 be_heavy=NMLZ.SG boy
 ‘a/the heavy boy’

6.3.2 Temporal adverbs

Many of the temporal adverbs, including the interrogative *hetnin* ~ *he?nin* ‘when’ involve the particle =*niŋ*, which is also found as a clause link-age marker for contemporaneous events. In contrast to the manner adverbs, the base for temporal adverbs is not verbal. Some roots are adverbs by themselves, some are demonstratives. The deictic roots *nam*, *chim* and

‘manner suffix’ -*lo?* for the derivation of manner adverbs, which is also known as comitative case marker in some of them, e.g. in Belhare (Bickel2003Belhare) and in Athpare (Ebert1994The-structure). The cognate form in Yakkha has developed into an equative postposition. The only adverb derived by *lo?a* in Yakkha is *pyaklo?a* ‘usually’, etymologically ‘like many/like much’.

khop, denoting distances counted in years (with the utterance context as zero point), do not occur independently. In these adverbs, *=nin* is employed for past reference, while for future, the same roots end in *-ma*, e.g. *namma* ‘next year’, *chimma* ‘two years later’. Table ?? provides an overview of the temporal adverbs.

Table 6.3: Temporal adverbs derived by *=nin*

ADVERB	GLOSS
<i>he?nin</i>	‘when’
<i>asennin</i>	‘(during) yesterday’
<i>encho?nin</i>	‘on the day before yesterday’
	‘recently’
<i>oncho?nin</i>	‘long time ago’
<i>kha?nin</i>	‘this time’
<i>ɲkha?nin</i>	‘that time’
<i>hoŋkha?nin</i>	‘right at that time’
<i>henin</i>	‘(during) this year’
<i>namnin</i>	‘last year’
<i>chimnin</i>	‘two years ago’
<i>khopnin</i>	‘three years ago’
<i>namnin-chimnin</i>	‘some years ago’

Other temporal adverbs count the days before(i.e., in the past) or ahead (i.e., in the future) of the point of speaking. They are listed in Table ?? below, together with further temporal adverbs. Note that not all of them necessarily have the time of speaking as their point of reference. For instance, *wandikɲa* can mean ‘tomorrow’ or ‘next day’. Two temporal adverbs can be compounded, yielding terms with less specific reference.

6.3.3 Adverbs based on obligatorily possessed nouns

A completely different etymological source for adverbs (and a few adjectives) are obligatorily possessed nouns. The possessive prefix can show agreement with the subject of the verb that is modified by the ad-

Table 6.4: Further temporal adverbs

ADVERB	GLOSS
<i>wandik-ucumphak</i>	‘some days/time ahead’
<i>okomphak</i>	‘two days after tomorrow’
<i>ucumphak</i>	‘the day after tomorrow’
<i>wandikŋa</i>	‘tomorrow, next day’
<i>hen-wandik</i>	‘these days’
<i>hensen</i>	‘nowadays’
<i>hen</i>	‘today’
<i>wandik</i>	‘later’
<i>lop</i>	‘now’
<i>khem</i>	‘shortly before’
<i>asen</i>	‘yesterday’
<i>encho ~</i>	‘day before yesterday’
<i>achupalen</i>	
<i>asenlek</i>	‘some days ago’
<i>asen-encho</i>	‘some time ago’

verb, as in (20), but mostly, the third person form is used. The shift from a noun to an adverb is evident from the fact that these words do not have any nominal properties other than taking the possessive prefix. Further nominal modification or case and number marking, for instance, are not possible, and they are not arguments of the verbs; one would expect agreement morphology if this was the case. Table ?? shows some examples. To my knowledge, similar lexicalizations have not been described for other Kiranti languages, except for a few examples from Belhare mentioned by Bickel2003Belhare who e.g. provides a cognate to *ochoŋna* ‘new’. In *uhingilik* ‘alive’, not a noun, but a verb *hiŋma* ‘survive’ was the base for the derivation process, and the possessive prefix was probably added later, in analogy to the other adverbs.

- (20) a. *a-tokhumak yep-ma*
 1SG.POSS-alone stand-INF
n-ya-me-ŋa-n=na
 NEG-be_able-NPST-1SG-NEG=NMLZ.SG
 ‘I cannot stand alone.’ [27_nrr_06.017]
- b. *o-tokhumak nin-ca-me?=na*
 3SG.POSS-alone cook-V2.EAT-NPST[3SG]=NMLZ.SG
 ‘He cooks and eats alone.’
- c. *eh, na nniŋ=ga piccha=go u-hingilik*
 oh this 2PL=GEN child=TOP 3SG.POSS-alive
wet=na, haku=ca
 exist[3SG]=NMLZ.SG now=ADD
tups-wa-m-ga=na,
 meet-NPST-2PL.A-2=NMLZ.SG
 ‘Oh, your child is alive, you will meet her again.’ [22_nrr_05.087]
- d. *lambu o-tesraŋ ikt-wa-m=na*
 road 3SG.POSS-opposite chase-NPST-1PL.A=NMLZ.SG
 ‘We follow the road in the opposite direction (i.e. we run in the wrong direction).’ [28_cvs_04.024]

Table 6.5: Adverbs and adjectives originating in obligatorily possessed nouns

ADVERB/ADJECTIVE	GLOSS
<i>uhingilik</i>	‘alive’
<i>ollobak</i>	‘almost’
<i>otokhumak</i>	‘alone’
<i>ohoppalik</i>	‘empty’
<i>ochon</i>	‘new’
<i>ulippa</i>	‘old’
<i>ole?wa</i>	‘raw, unripe’
<i>otesran</i>	‘reversed’
<i>uimalan</i>	‘steeply down’
<i>uthamalan</i>	‘steeply up’

6.3.4 Adverbs derived by *-lik* ~ *-lek*

Another marker that is frequently found in adverbs (and in some adjectives) is the lexical diminutive *-lik* ~ *lek* (occasionally also *-rik* ~ *-rek*), as shown in Table ???. It is also used in the derivation of lexical nouns that are characterized by their small size (see §???). Cognates of this marker exist in other Kiranti languages, e.g. *-let* in Athpare (Ebert1997A-grammar) and *-cilet* in Belhare (Bickel2003Belhare). All of these adverbs have verbal stems as their base, and often the resulting adverbs occur with just these verbs, thus merely adding emphasis to the result of the verbal action, such as *iplik* ‘(properly) twisted’. Some forms in the table may also occur reduplicated. One ideophonic adverb ending in *-lek* was found, too: *picingelek*, imitating a high-pitched voice, like the calls of eagles or owls. Some examples can be found below in (21).

- (21) a. *man?cwa phoplek lept-haks-u*
 water at_once throw-V2.SEND-3.P[IMP]
 ‘Pour out the water at once.’

Table 6.6: Adverbs derived by *-lik* (and allomorphs)

VERBAL ROOT	ADVERB	GLOSS
<i>caks</i> ‘overturn’	<i>cicaṅgalik(-cicaṅgalik)</i>	‘tumbling, overturning’ (in somersaults, bulky objects)
<i>hiks</i> ‘turn’	<i>hiklik</i>	‘turned around, upside down’
<i>ipt</i> ‘twist, wring’	<i>iplik(-iplik)</i>	‘properly [twisted]’
<i>kaks</i> ‘fall’	<i>kakkulik(-kakkulik)</i>	‘tumbling or rolling down’ (round objects, smooth movement)
<i>pekt</i> ‘fold’	<i>pektungulik</i>	‘[folded] properly, many times’
<i>phopt</i> ‘spill, pour’	<i>phoplek</i>	‘[pouring out] at once’
<i>si</i> ‘die’	<i>siklik</i>	‘[dying] at once’
<i>sos</i> ‘lie slanted’	<i>sontrik</i>	‘[manner of] sliding, falling’
<i>wakt</i> ‘bend forcefully’	<i>wakurik</i>	‘bent, crooked’
<i>hop</i> ‘rot’	<i>hobrek</i>	‘[rotten] completely’

- b. *pektungulik* *pekt-u=hoŋ*
 properly_folded fold-3.P[PST]=SEQ
 u-lum=be *kaici=ŋa*
 3SG.POSS-middle=LOC scissors=INS
 yub-haks-u=na
 cut-V2.SEND-3.P[PST]=NMLZ.SG
 ‘He folded it properly and cut it through in the middle with
 scissors.’ [Cut and Break Clips (Bohnenmeyeretal2010_cut)]

6.3.5 Marginal derivations

Two further derivations were found, but each only with a handful of lexemes. One derivation creates adverbs based on verbal roots and a suffix *-ci(k)*,⁷ and a reduplication of this complex of root and suffix. Three such adverbs were found, all from the semantic domain of experience: *hapticik-hapticik* ‘whinily, weepily’, *chemci-chemci* ‘jokingly, teasingly’, *yunci-yunci* ‘smilingly’.

⁷ Closing open syllables by /k/ is common in Yakkha and also known from the treatment of Nepali loans see §??.

Another morpheme that is occasionally found in adverbs is *-leŋ*. The currently known forms are: *cilleŋ* ‘lying on back’, *walleŋ* ‘lying on the front’, and *cilleŋ-kholleŋ* ‘rocking, swaying’ (like a bus on a bad road or a boat in a storm). There is a directional case marker *-leŋ* in Belhare (Bickel2003Belhare the notion expressed by *khaʔla* in Yakkha), and thus it is very likely that this derivation has the same source, although such a marker does not exist in Yakkha synchronically.

6.3.6 Non-derived adverbs

Finally, there are also a few adverbs that have no transparent etymology, such as *hani* ‘fast’, *swak* ‘secretly’, *tamba* ‘slowly’,⁸ *pakha* ‘outside’ and *sori* ‘together’. Interestingly, these adverbs cannot be turned into adjectives by nominalizing them; one could, for instance, not say **soriha yapmici* ‘the people who are together’.

6.4 Reduplication, triplication and ideophones

Rhyming patterns as well as ideophones are very common in Yakkha adverbs and adjectives, and often both are combined. Since they are exceedingly rare in the other word classes, they can be taken as an indicator (albeit rather statistic than categorical) for adverb-hood or adjective-hood. The bases for reduplication can be of verbal, adverbial or ideophonic nature. As always, there are some bases with obscure origin, too. The bases for triplication are always monosyllabic and lack independent meaning. Ideophonic adverbs are based on a similarity relation between their phonetic form and the concept they express. This is not necessarily a relation based on acoustic similarities (as in onomatopoeia); other senses such as sight, taste or smell can as well be involved in ideophonic expressions. Hence, the relation between signifier and signified is more iconic than in “core” lexemes, where the semantics and the phonological form are in an arbitrary relationship.

The phonological behavior of reduplicated/triplicated forms and that of ideophones often shows deviations from the core lexicon, such as pe-

⁸ The final syllable *-ba* is a nominalizer, but the origin of the stem *tam* is not known.

culiar stress patterns or unusual segments that do not occur in nouns or verbs of the language (such as /gh/ or /bh/ in Yakkha). This has already been noted for Bantawa by **Raietal1997Tripllicated** who label them ‘paralexemes’, relating the exceptional behavior of such forms to their emphatic or expressive function (expressing feelings or the attitude of the speaker).

Reduplicated adjectives and adverbs are always stressed on the second syllable (*can.'can*). This suggests an analysis of reduplication as a prefixation. Bisyllabic words are generally stressed on the first syllable in Yakkha (cf. Chapter ??), but since prefixes are not part of the stress domain in Yakkha, words consisting of a prefix and a monosyllabic stem are stressed on the second syllable. Triplicated forms are always stressed on the last syllable, which is exceptional for Yakkha stress assignment.

6.4.1 Reduplication in adjectives

The reduplicated adjectives mostly relate to physical features like size, form or texture. Another group are adjectives based on experienter verbs. The above-mentioned pattern of nominalization to indicate attributive or nominal usage (cf. §??) also holds for adjectives derived by reduplication (see (22)).

- (22) a. *u-yabulu?a ikhiŋ jonjon=na!*
 3SG.POSS-lips how_much elevated=NMLZ.SG
 ‘How bulging his lips are!’
- b. *chainpur cancan=na=be wai?=na*
 Chainpur high=NMLZ.SG=LOC exist[3SG]=NMLZ.SG
 ‘Chainpur is in a high (place).’
- c. *a-phok gangaŋ*
 1SG.POSS-stomach burstingly_full
leks-a=na
 become[3SG]-PST=NMLZ.SG
 ‘My stomach is now full as a tick.’

Table ?? shows the verbal roots serving as bases (as far as they can be reconstructed) and the corresponding reduplicated adjectival forms.

Generally, post-nasal voicing of unaspirated consonants applies, and is copied to the first syllable to yield maximal identity between base and reduplicated syllable. Thus, forms like *bumbum* or *jonjon* emerge, which are unusual from the perspective of Yakkha phonological rules, because they display voiced initial obstruents in a language that has largely lost the contrast between voiced and unvoiced obstruents. The only exception is *cancan*, which retains its unvoiced obstruents, but the affricate behaves exceptional also in other lexemes with respect to the voicing rule. With regard to the verbal bases, augmented stems (i.e. with a CVC-t structure) omit the augment /-t/ before reduplicating. Stems alternating between a CVC-s and a CVN structure (such as *caks* ~ *can*), generally choose the CVN stem form as base for the reduplication (see §?? for stem formation). If the base has CVC structure and the consonants have the same place of articulation, this does not result in gemination in the reduplicated form. Rather, the coda consonant is omitted in the first syllable (e.g. *pha.phap*). Some of these adjectives can be combined to yield further meanings, e.g. *chekchek-bonbon* (low-elevated) ‘zig-zag, uneven’.

Some adjectives derived from experiential verbs are shown in Table ???. They always have causative semantics, as shown in (23). Their bases are from those experiential verbs that code the experiencer as possessor (cf. §??). These verbs consist of a noun (denoting a sensation or a body part) and a verb, often a motion verb. The reduplication only involves the verbal stem of these compounds. In attributive position, they host the usual nominalizers =*na* or =*ha*. Since the stem *ke?* ‘come up’, that is involved in many of these compounds, ends in a glottal stop, which never occurs word-finally in Yakkha, it is replaced by /k/ at the end of the word.

- (23) a. *batti* *chik-ʔekek* *leks-a=na!*
 electricity causing_hate become[3SG]-PST=NMLZ.SG
 ‘The power cuts drive me mad already!’
- b. *hakamba-keke?=na* *ceʔya*
 making_yawn=NMLZ.SG matter
 ‘talk that makes me sleepy’

Table 6.7: Adjectives derived by reduplication

VERBAL BASE	ADJECTIVE	GLOSS
<i>cand</i> ‘rise up’	<i>cancan</i>	‘tall, high’
<i>chekt</i> ‘close’	<i>chekchek</i>	‘deep, low, narrow’
-	<i>chenchen</i>	‘with longer side in horizontal position’ ‘sidesleeping’
<i>chiks</i> ~ <i>chin</i> ‘tighten, tie off’	<i>chinchin</i>	‘tight’
<i>chuks</i> ~ <i>chun</i> ‘be wrinkled’	<i>chunchun</i>	‘wrinkled’
<i>cos</i> ‘push’	<i>jonjon</i>	‘sticking out, bulging’
-	<i>gangan</i>	‘[belly] full as a tick’
<i>hupt</i> ‘tighten, unite’	<i>hubhub</i>	‘buxom, compact’
<i>kept</i> ‘stick, glue’	<i>kepkep</i>	‘concave, sticking to’
-	<i>lenlen</i>	‘horizontally huge, lying’
<i>mopt</i> ‘cover, close’	<i>mopmop</i>	‘covered’
-	<i>nepnep</i>	‘short in height’
-	<i>pakpak</i>	‘hollow, bowl-shaped’
<i>pekt</i> ‘fold’	<i>pekpek</i>	‘flat, thin, folded’
<i>phaps</i> ~ <i>pham</i> ‘entangle’	<i>phaphap</i>	‘[hair] entangled, scraggy’
<i>phopt</i> ‘spill, turn over’	<i>phophop</i>	‘face-down, overturned’
<i>pok</i> ‘get up, rise’	<i>pokpok</i>	‘in heaps, sticking out’
<i>poks</i> ~ <i>pon</i> ‘explode’	<i>bonbon</i>	‘elevated, convex’
<i>pups</i> ~ <i>pum</i> ‘tuck up, roll in fist’	<i>bumbum</i>	‘[plastering of a house] thickly’/ ‘[body parts] swollen’/ ‘[teeth] sticky’
-		
<i>pur</i> ‘cut off, break off’	<i>pupup</i>	‘chubby, short and fat’
-	<i>sepsep</i>	‘thin, not healthy’
<i>sos</i> ‘lie slanted’	<i>sonson</i>	‘[sliding] slanted, horizontally’
<i>yok</i> ‘search, look for’	<i>yokyok</i>	‘carefully, balancing’

Table 6.8: Adjectives derived from experiential verbs

VERBAL BASE	ADJECTIVE	GLOSS
<i>lok-khot</i> ‘get furious’	<i>lok-khokhok</i>	‘causing fury’
<i>chik-ek</i> ‘get angry/hateful’	<i>chik-ekek</i>	‘causing anger/hate’
<i>hakamba-ke?</i> ‘yawn’	<i>hakamba-kekek</i>	‘making yawn, making tired’
<i>luŋma-tukt</i> ‘love’	<i>luŋma-tuktuk</i>	‘loveable, pitiable’
<i>pomma-ke?</i> ‘get lazy’	<i>pomma-kekek</i>	‘making lazy’
<i>yuncama-ke?</i> ‘have to laugh’	<i>yuncama-kekek</i>	‘funny, ridiculous’
<i>chippa-ke?</i> ‘be disgusted’	<i>chippa-kekek</i>	‘disgusting’

6.4.2 Reduplication in adverbs

Table ?? shows adverbs derived by reduplication. Their number is far lower than that of reduplicated adjectives. The verbs that provide the base for the adverbs may occur together with the adverbs that are derived out of them, see e.g. (24a). In such cases, it is hard to say what the semantic contribution made by the adverbs is, apart from emphasis. In the same example the adverb also serves as base for a rhyme *miŋmiŋ*, which adds further emphasis. For *lumlum* ‘loudly’, it is not quite clear whether it may also have an onomatopoeic component.

Table 6.9: Adverbs derived by reduplication of verbal roots

VERBAL BASE	ADVERB	GLOSS
<i>cend</i> ‘wake up’	<i>cencen</i>	‘[sleeping] lightly’
<i>chups</i> ‘gather’	<i>chumchum</i>	‘gathered, economically, sparing’
<i>chuŋ</i> ‘wrap, pack’	<i>chuŋchuŋ</i>	‘sadly, sunken’
<i>lus</i> ‘roar, deafen’	<i>lumlum</i>	‘loudly, powerfully’
<i>maks</i> ‘wonder’	<i>maŋmaŋ</i>	‘wondering’
<i>sips</i> ‘twinkle, squint’	<i>simsim</i>	‘squinting, blinking’

- (24) a. *maŋmaŋ-minmin*
wondering-RHYME
m-maks-a-by-a-ma,
3PL-be_surprised-PST-V2.GIVE-PST-PRF
‘They were utterly surprised.’ [22_nrr_05.028]
- b. *lumlum mokt-u-ga=i!*
loudly beat-IMP[3.P]-2.A=FOC
‘Beat (the drum) loudly!’

Reduplication of independent adverbs (and adjectives) is also possible, expressing intensity or iterativity (see (25)).⁹

- (25) a. *sakhi iblik-iblik ipt-a=na*
thread twisted-REDUP twist-PST[3SG]=NMLZ.SG
‘The thread is properly twisted.’
- b. *batti simik-simik hand-u=na*
light blinking-REDUP burn-3.P[PST]=NMLZ.SG
‘The (electric) torch is blinking.’

Some of the reduplicated adverbs add /e-/ to each component, without further change of meaning (see Table ??). This is attested for Belhare, too, analyzed as marking extension (**Bickel1997Dictionary**).

Table 6.10: Reduplication of adverbs

VERBAL BASE	ADVERB
<i>ipt</i> ‘twist, wring’	<i>iblik-iblik</i> ‘twisted’
<i>sips</i> ‘close [eyes]’	<i>simik-simik</i> ‘blinking’
<i>khik</i> ‘be bitter’	<i>ekhik-ekhik</i> ‘tasting bitter’
<i>khumdu</i> ‘tasty’	<i>ekhumdu-ekhumdu</i> ‘tasting good’
<i>maŋdu</i> ‘far’	<i>emaŋdu-emaŋdu</i> ‘far away’
-	<i>esap-esap</i> ‘swiftly’
-	<i>elok-elok</i> ‘from far away’

⁹ See **Doornenbal2009A-grammar** for a similar point on Bantawa triplicated adverbs.

6.4.3 Triplication

Triplication patterns, similar to those found in Bantawa and Chintang (cf. Rai1984A-descriptive; Raietal1997Triplicated; Raietal2005Triplication) were also found in Yakkha (see Table ??). Triplicated forms in Yakkha differ from those in the two languages mentioned above in three ways:

- they are not derived from stems that have an arbitrary, lexical, non-iconic meaning; most of them have an ideophonic component (i.e., an iconic relationship between the concept expressed and the phonological form)
- they never host the suffix *-wa* (which is a property of Chintang and Bantawa triplicated adverbs)¹⁰
- they always change the initial consonant in the syllables of the rhyme, i.e. only the vowel of the base is retained

The triplication pattern in Yakkha involves a syllable CV (occasionally CV-ŋ) functioning as the base, and two suffixed syllables building a rhyme, changing the initial consonant to /ɾ/, /l/, or (rarely) to /t/, /c/, /k/ or /b/. Occasionally, the syllables building the rhyme are closed by a velar stop or nasal, as in *seleŋleŋ* or *siliklik*. The vowel remains the same in all three syllables. This process has to be analyzed as triplication and not simply as recursive reduplication, because bisyllabic words such as *huru* or *phili* do not exist.¹¹ Triplicated adverbs show a divergent stress pattern; it is always the last syllable that is stressed.

Some examples of triplicated adverbs are provided in (26). As (26b) illustrates, adjectives may be derived from these adverbs via the nominalizers *=na* and *=ha*.

- (26) a. *o-heli* *tururu* *lond=ha*
 3SG.POSS-blood flowing come_out[PST]=NMLZ.NSG
 ‘He was bleeding profusely.’

¹⁰ The suffix is an adverbializer in these languages.

¹¹ The same was found in Chintang (Raietal2005Triplication), while in Bantawa, some forms may also appear with just one repeated syllable, suggesting an analysis of triplication as recursive reduplication with the function of emphasis in Bantawa (Doornenbal2009A-grammar).

Table 6.11: Adverbs involving triplication

ADVERB	GLOSS
<i>bhututu</i>	‘farting sound’
<i>gururu</i>	‘[coming] in flocks, continuously (e.g. at festivals)’
<i>haŋcaŋcaŋ</i>	‘dangling’
<i>hibibi</i>	‘[wind] blowing gently’
<i>hururu</i>	‘[wind] blowing strongly’ (also in NEP)
<i>khiriri</i>	‘spinning, revolving’
<i>lututu</i>	‘[dough, soup] being too thin’
<i>pelele</i>	(i) ‘pulling something heavy or blocked’ (ii) ‘[shawl, clothes] come undone’
<i>phelele</i>	‘[bird flying] up high’
<i>philili</i>	‘[butterfly] jittering’
<i>phururu</i>	‘[manner of] strewing, dispersing’
<i>pololo</i>	‘[bamboo, construction materials] being too long to handle’
<i>pururu</i>	‘[flowing] in streams’
<i>selenlen</i>	‘[wind] blowing strongly such that leaves start to rustle’
<i>siliŋliŋ</i>	‘shaking’
<i>siliklik</i>	‘fuming with anger’
<i>serere</i>	‘[drizzling] thinly, [morning sunbeams] thinly’
<i>sototo</i>	‘[walking, moving] one after the other’
<i>thokokok</i>	‘shaking heavily [from fever, earthquake]’
<i>tholoklok</i>	‘[boiling] vigorously’
<i>tururu</i>	‘[blood, tears] flowing, dripping’
<i>walaŋlaŋ</i>	‘bursting out in laughter’
<i>yororo</i>	‘[fire wood heap, rice terrace] falling and tearing along’

- b. *hiwiwi=na* *hi?wa*
 blowing_gently=NMLZ.SG wind
 ‘a gentle wind’
- c. *ka caram=be khiriri is-a-ŋ=na*
 1SG yard=LOC spinning revolve-PST-1SG=NMLZ.SG
 ‘I was spinning around in the yard.’
- d. *heko=na whak=pe a-tek*
 other=NMLZ.SG twig=LOC 1SG.POSS-clothes
het-u=hoŋ ka haŋcaŋcaŋ chu-ya-ŋ
 get_stuck-3.P[PST]=SEQ 1SG dangling hang-PST-1SG
 ‘My clothes got caught on another branch, and then I was
 dangling there.’ [42_leg_10.032]

6.4.4 Ideophonic adverbs

Several adverbs have ideophonic quality, i.e. there exists an iconic relationship between their form and some aspect of their meaning. The similarity relation may be based on sound as in onomatopoeia, but it may also be based on the visual, olfactory or haptic senses (Caughley1997_Vowel). Table ?? provides an overview; some examples from natural language are shown in (27). The adverbs that modify processes or activities have a reduplicated structure; only those that modify punctual events do not occur in reduplicated form. The bases for the reduplication can consist of up to three syllables. Ideophones often show some deviating behavior with regard to the general phonological outlook of a language. The same can be said about Yakkha ideophones. Initials such as /g^h/ or /j^h/ are not found beyond ideophones, and voiced initials like /b/ are rare, too.

- (27) a. *na picha kho?luk-kho?luk*
 this child coughing-REDUP
hot-a-s-heks-a=na
 cough-PST-V2.DIE-V2.CUT-PST[3SG]=NMLZ.SG
 ‘This child is about to die, having a coughing fit.’
- b. *u-laŋ men-da-le=na picha*
 3SG.POSS-leg NEG-come-NEG=NMLZ.SG child

Table 6.12: Ideophonic adverbs

ADVERB	GLOSS
<i>boʔle-boʔle</i>	‘[manner of] stuttering, stammering’
<i>chok</i>	‘suddenly [piercing]’
<i>ebbebe</i>	‘trembling’
<i>ghok-ghok</i>	‘pig grunts’
<i>ghwa-ghwa</i>	‘bawling’
<i>hesok-hesok</i>	‘[manner of] breathing with difficulty’
<i>hobrok</i>	‘[falling, dropping] at once’
<i>honghak-honghak</i>	‘[walking] with sudden steps (like drunken people)’
<i>jhellek</i>	‘flashing’
<i>kai-kai</i>	‘[sound of] weeping’
<i>kerek-kerek</i>	‘chewing hard things (like bones)’
<i>khobak-khobak</i>	‘[manner of] crawling’
<i>khoblek</i>	‘[manner of] finishing the plate’
<i>khoʔluk-khoʔluk</i>	‘[sound of] coughing’
<i>kurum-kurum</i>	‘chewing hard, crunchy things (like chocolate)’
<i>kyan-kyan</i>	‘barking lightly’
<i>lak</i>	‘being dropped’
<i>oenk-oenk</i>	‘buffalo grunts’
<i>phorop-phorop</i>	‘[sound of] slurping (e.g. tea, soup)’
<i>phutruk-phutruk</i>	‘[manner of] jumping around’
<i>syang</i>	‘[flying] like a rocket, by being thrown or shot’
<i>sukluk</i>	‘dozing off for a short moment (like in a boring meeting)’
<i>tanpharan-tanpharan</i>	‘staggering’
<i>thaʔyan-thaʔyan</i>	‘[manner of] walking with difficulty’
<i>thulum-thulum</i>	‘wobbling (like fat or breasts)’
<i>thek</i>	‘[manner of] hitting lightly’
<i>thwan</i>	‘sudden bad smell’
<i>tuk-tuk</i>	‘[sitting] squatted, crouching’
<i>whan-whan</i>	‘[barking] loudly’
<i>wop</i>	‘[manner of] slapping with full hand’ ‘(producing a deep, loud sound)’
<i>yakcik-yakcik</i>	‘[sound of] squeezing, chewing (e.g. chewing gum)’
<i>yakpuruk-yakpuruk</i>	‘[sound of] squeezing (e.g. millet mash for beer)’
<i>yanggan-yanggan</i>	‘[manner of] toppling over (humans and objects)’

- khobak-khobak lam-meʔ=na*
 crawling-REDUP walk-NPST[3SG]=NMLZ.SG
 ‘The child that cannot walk (yet) moves crawling.’
- c. *boʔle-boʔle ceŋ-meʔ=na*
 stammering talk-NPST[3SG]=NMLZ.SG
 ‘He is stammering.’
- d. *sukluk ips-a-khy-a=na*
 dozing_off sleep[3SG]-PST-V2.GO-PST=NMLZ.SG
 ‘She dozed off.’
- e. *ka ebbebe kisit-a-ŋ khon*
 1SG trembling be_afraid-PST-1SG so_that
ghwa-ghwa hab-a-ŋ
 bawling cry-PST-1SG
 ‘I was scared, so that I bawled out loudly.’ [42_leg_10.047]
- f. *uŋci=ga sokma ʔhwan nam-ma*
 3NSG=GEN breath smelling_awfully smell[3]-PRF
 ‘Their breath smelled awfully.’ [41_leg_09.045]

7 The geomorphic orientation system

7.1 Introduction

*Geomorphic*¹ spatial expressions present an absolute system, relying on the features of the landscape. The anchor of this system is the inclination of the steep hills that shape so many aspects of life in the Kiranti area (see also Figure ??). The system is absolute, as the directions of up-hill and downhill are grounded in the environment and do not depend upon the orientation of the speaker or any other object. It can also be deictic, however, because these directions are in many cases defined from the perspective of the utterance context.

As a distinctive feature of Kiranti languages, geomorphic systems have been the subject of a number of studies, for example by **Allen1972The-vertical** for Thulung, **Bickel1994Mapping**; **Bickel1999Cultural**; **Bickel1997Spatial**; **Bickel2001Deictic** for Belhare, **Gaenszle1999Travelling** for Mewahang, **Dirksmeyer2008Spatial** for Chintang.² What makes Kiranti languages special is that this topography-based deixis is also used for micro-location, for instance for distinguishing two glasses on a table or two branches on a tree.

There are two mapping systems, large-scale, defined by the global inclination of the Himalayas (roughly, ‘uphill’ can be equated with ‘north’ in this mapping system), and small-scale, defined by the cline of individual hills. As also pointed out for Belhare by **Bickel1997Spatial** the large-scale abstraction ignores the cline of individual hills, and the small-scale abstraction ignores horizontal planes on a hill. To give an example for

¹ Terminology following **Bickel1997Spatial**

² Geomorphic orientation systems are, however, not unique to Kiranti languages. Another famous example is the Mayan language Tzeltal (**Brownetal1993Uphill**).

the large-scale abstraction: speakers refer to any location outside the Himalayas (even as far away as Europe or America) as ‘downhill’. To give an example for the small-scale abstraction: rooms on the same level of the house are divided into ‘uphill’ and ‘downhill’ rooms, depending on which side of the house faces the hill on which it is located. The latter can be extended to refer to ‘up’ and ‘down’, too (as in ‘up into the sky’).

Figure 7.1: A typical trail in Tumok

Geomorphic deixis permeates Yakkha grammar; it features in a number of word classes and grammatical subsystems, in demonstratives, adverbs, postpositions, verbs and even interjections.³ This shows how deeply rooted the geomorphic system is in the grammar of Yakkha, and how strongly environmental factors may shape a language.⁴ **Bickel et al. 1999** **Cultural** also point out the salience of the ‘hill’ conception in cultural domains such as architecture, rituals and mythology in the Kiranti cultural sphere. For Yakkha, this connection remains to be studied.

In the following, I will briefly lay out the system, before illustrating its application in each word class. Geomorphic forms in Yakkha are based on two sets of roots, called /u/-forms and /o/-forms in the following discussion. They indicate a threefold distinction: words based on *tu* and *to* for ‘uphill’, on *mu* and *mo* for ‘downhill’ and on *yu* and *yo* for ‘across (at the same altitude)’. The distinction between the /u/-forms and the /o/-forms is one of deictic transposition, as in Belhare (see **Bickel 1997** **Spatial**; **Bickel 2001** **Deictic**).

The schematic diagrams in Figure ?? and Figure ?? provide a bird’s eye view on the deictic field, and the black dots indicate the speaker. In both sets, the deictic field is partitioned into four quadrants. In the /u/-forms, the point of reference for projecting the four quadrants (indicated by ‘Ø’) is located within the speech situation. Objects located uphill from

³ Other Kiranti languages like Belhare, Bantawa or Khaling furthermore distinguish altitude in their locative case systems (**Ebert 1994** **The-structure**; **Bickel 1997** **Spatial**).

⁴ The Yakkha system (and Kiranti languages in general) also shows that spatial orientation is by no means universally egocentric (based on the body of the speaker), as had been claimed before the discovery of geomorphic deixis.

the interlocutors are indicated by forms based on *tu*, objects located downhill from the interlocutors are indicated by forms based on *mu*, and objects on the same level (to either side of them) are indicated by forms based on *yu* (see Figure ??). Contrasts like left/right or front/back do exist in Yakkha, but they are rarely used in the expression of spatial orientation. The speakers are able to provide the lexemes when they are asked, but I have no instance of recorded natural speech using *pheksan* ‘left’ and *chuptan* ‘right’. From the available lexical information, the left side is connoted negatively; it is used metaphorically in a term for a malicious wizard, for instance. This also fits with the widespread perception of the left hand as impure in South Asian societies. The terms *ondan* ‘front’ and *heksan* ‘back’ are used more frequently than ‘left’ and ‘right’.

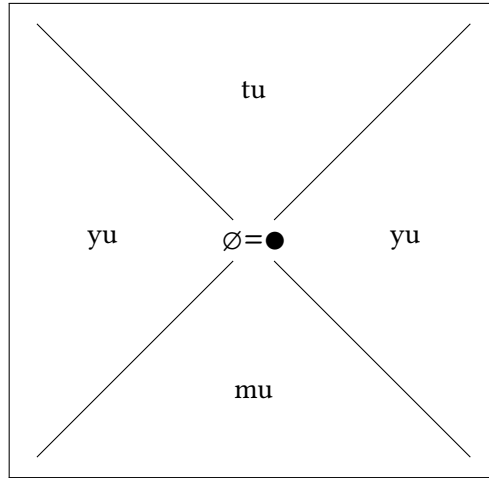


Figure 7.2: The deictic mapping system of the /u/-forms

In the /o/-forms, the point of reference for projecting the four quadrants is transposed to a location that is not identical to the speech situation. The distinctions between ‘uphill’, ‘downhill’ and ‘across’ are now determined from the perspective of this transposed point of reference (see Figure ??; positioning the speaker on the left side of the diagram

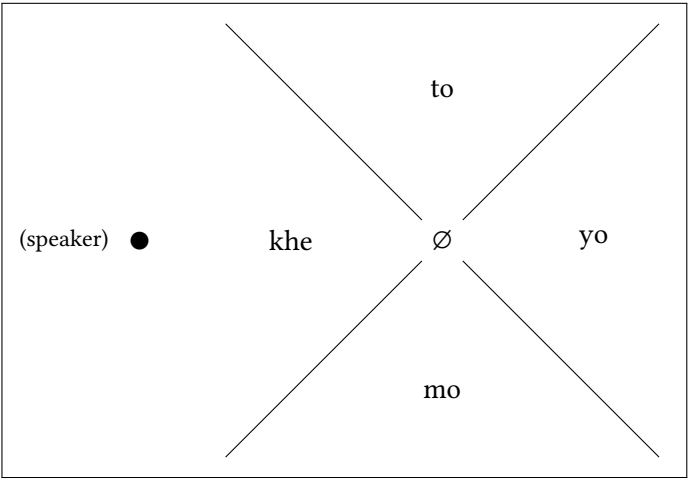


Figure 7.3: The transposed mapping system of *khe* and the /o/-forms

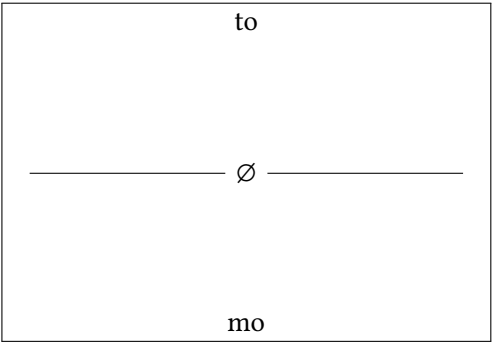


Figure 7.4: Object-centered usage of *mo* and *to*

was an arbitrary choice, he could as well have been posited on the right side; of course with a consequent reversal of *yo* and *khe*). Furthermore, if the transposed zero point is on the same elevation level as the interlocutors, a fourth root *khe* comes into play, indicating the field between this new zero point and the speech situation. This field opens up only in the transposed system. The transposed zero point is important for generic statements and when the speaker talks about events he saw in movies, for instance. Given the transposed zero-point, it is only natural that there are more adverbs derived from the /o/-forms than from the /u/-forms. The /o/-forms also serve as bases for spatial postpositions. Postpositions derived from the /u/-forms would only have the potential to locate objects with respect to the speech situation, not with respect to other objects.

The /o/-forms are also used to locate objects, or parts of objects, in relation to one another, for instance in order to determine the upper and the lower floor of a house, or in statements like ‘I climbed up the tree’, where one abstracts away from the topography. In this object-centered system of spatial orientation, the location of the speech situation is irrelevant. This is outlined in Figure ???. There are some fixed expressions like *mokha?la-tokha?la* ‘up and down’ (lit.: ‘down and up’). Similarly, *yo* and *khe* are used to convey contrasting directions on the same level (regardless of where the speaker is located), for instance in expressions like *yokha?la-khekha?la* ‘to and fro, back and forth’.

After this rather abstract characterization of the geomorphic orientation system of Yakkha, the remaining sections will illustrate how it is applied in each grammatical subsystem. Demonstratives (together with the interjections), are discussed in §??, adverbs in §??, postpositions in §?? and verbs in §??.

7.2 Demonstratives

There are two sets of demonstratives, one featuring the the deictic /u/-forms and one featuring the transposed /o/-forms, as summarized in Tables ?? and ??. Structurally, these subsets are different from each other, too. The /o/-forms are inherently adverbial and become nominal

through nominalization with =*na* (SG) or =*ha* ~ =*ya* (NSG/NC). This is illustrated for *to* in example (1). These demonstratives can be used adnominally or pronominally. The /u/-forms are essentially adverbs, too, but they can also be used as interjections, i.e. as proforms for clauses (see example (2)). In this function they have a characteristic intonation. Uttered to attract the hearer's attention and to make him look in a particular direction, they are often accompanied by pointing gestures. The /u/-forms always locate an object with respect to the speech situation, i.e., the zero point is identical to the utterance context. This explains why the /u/-forms can combine with the proximal demonstratives, *na* and *kha* (cf. §??), to yield the topography-specific demonstratives shown in Table ??.

Table 7.1: Geomorphic demonstratives, /u/-forms

DIRECTION	ROOT (ADV/INTERJ)	DEMONSTRATIVE (SG/NSG, NC)
UP	<i>tu</i>	<i>tunna/tukha</i>
ACROSS	<i>yu</i>	<i>yunna/yukha</i>
DOWN	<i>mu</i>	<i>munna/mukha</i>

Table 7.2: Geomorphic demonstratives, /o/-forms and *khe*

DIRECTION	ROOT (adv.)	DEMONSTRATIVE (SG/NSG, NC)
UP	<i>to</i>	<i>tona/toha</i>
ACROSS (BEYOND)	<i>yo</i>	<i>yona/yoha</i>
ACROSS	<i>khe</i>	<i>kheha/kheha</i>
DOWN	<i>mo</i>	<i>mona/moha</i>

- (1) a. *to khy-a!*
 uphill go-IMP
 'Go up!'

- b. *to=na paŋ*
 uphill=NMLZ.SG house
 ‘the upper house’
- (2) a. *mu! puchak!*
 INT snake
 ‘Look, down there! A snake!’
- b. *tu! maŋme!*
 INT eagle
 ‘Look, up there! An eagle!’

Examples of /u/-demonstratives are shown in (3). In (3a), the home of the person referred to by *buddhini* is located on the same level as the speaker’s home, where she is sitting at the time of speaking. Example (3b) is from a mythical story that takes place in the environment and the array of villages as they are today, and the place called Manglabare is uphill from the speech situation (in Tumok village). The /u/-forms are also used for microlocation, such as pointing out a spider to the downhill side of the speaker, even if it is located on the same elevation level (see Figure ??).

- (3) a. *nhaŋ yunna buddhini=ca eko*
 and_then this_across buddhist_woman=ADD one
pi-ŋ
 give[PST]-1SG.A
 ‘And I gave one to the buddhist woman (living) over there.’
 [36_cvs_06.387]
- b. *ŋ-ikt-uks-u-ci=hoŋ tunna*
 3PL.A-chase-PRF-3.P[PST]-3NSG.P=SEQ this_uphill
maŋlabare n-da-ya-by-a-ma
 Manglabare 3PL-come-PST-V2.GIVE-PST-PRF
 ‘As they (the Limbus) chased them (Lalubang and Phalubang),
 they (the Limbus) already came up to Manglabare.’ (lit. ‘to
 Manglabare uphill’) [22_nrr_05.029]

In contrast, the /o/-forms are found in generic statements (see (4a)), and in procedural descriptions, that are detached from the here and now

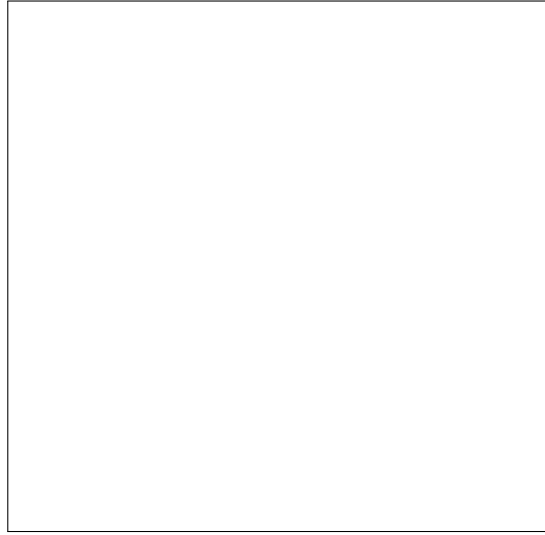


Figure 7.5: The /u/-forms in practice

of the speech situation (see (4c)). They are also found in contexts that open up a secondary deictic field, such as in movies (see example (4b) from a pear story).

- (4) a. *nhəŋ eko=bu, mo=na tala=ca*
 and_then one=REP downhill=NMLZ.SG floor=ADD
me-wa-m=ha=bu
 NEG-live-INF[DEONT]=NMLZ.NSG=REP
 ‘And one more thing: the Linkhas shall not live on the ground
 floor, too, it is said.’ [11_nrr_01.040]
- b. *nhəŋə hon=na mamu=nun,*
 and_then that_very=NMLZ.SG girl=COM
saikal=be ta-yatasa=na
 bicycle=LOC come[3SG]-PST.PROG=NMLZ.SG
yo=na mamu=ca, nhəŋə kha?la
 across=NMLZ.SG girl=ADD and_then like_this
lukt-a-sy-a-ci, men=na=i?
 bump_into-PST-MDDL-PST-DU COP.NEG=NMLZ.SG=Q

- ‘And that earlier girl and the girl that was coming on the bike, they collided like this, right?’⁵ [34_pea_04.025]
- c. *to=na paŋ=be ku-nuŋ-ma,*
 up=NMLZ.SG house=LOC guard-V2.SIT-INF[DEONT]
sin-di-me, mo=na paŋ=be
 die-V2.GIVE[3SG]-NPST downhill=NMLZ.SG house=LOC
tha n-leŋ-me-n,
 knowledge NEG-happen[3SG]-NPST-NEG,
ka-ma paŋyo ai?
 say-INF[DEONT] have_to TAG
 ‘In the upper house, people keep sitting at the sickbed, some-
 one dies eventually – in the lower house, they have no idea,
 one has to tell them, right?’⁶ [29_cvs_05.028]

As pointed out in the introduction, the /o/-forms are also used when two objects are located with respect to each other, as in such cases the zero point is also not identical to the speech situation, but located between the related objects, such as in (5). In this example, two people look downhill, seeing two swallows sitting on a parallel wires (as illustrated in Figure ??). Interlocutor A points out something about one of the swallows and interlocutor B wants to reconfirm whether he got the reference right. The zero point for the projection is located between the two birds. The demonstrative *tona* refers to the bird closer to the hill on which the interlocutors are located and that serves as the anchor of the relation, and *mona* refers to the bird on the wire further away from that hill. If the swallows had been located uphill from the interlocutors, the question would have been exactly the same as the one uttered in (5); the speech situation is irrelevant for the interpretation of this utterance.

⁵ The verb form *tayatasa* could not be analyzed, as no corresponding paradigm could be elicited. According to the Nepali translations, I tentatively labelled it ‘past progressive’.

⁶ This example refers to another Yakkha custom: firing rifles for announcements, in pairs to announce marriages, and in single shots to announce the death of a member of the household. The choice of *tona* and *mona* in this example is arbitrary, it could as well be the other way round, as this is just an example made by the speaker to illustrate the custom; the sentence does not refer to any particular constellation of houses.

- (5) *to=na=em* *mo=na=em?*
 uphill=NMLZ.SG=ALT downhill=NMLZ.SG=ALT
 ‘(Do you mean) the upper one or the lower one?’

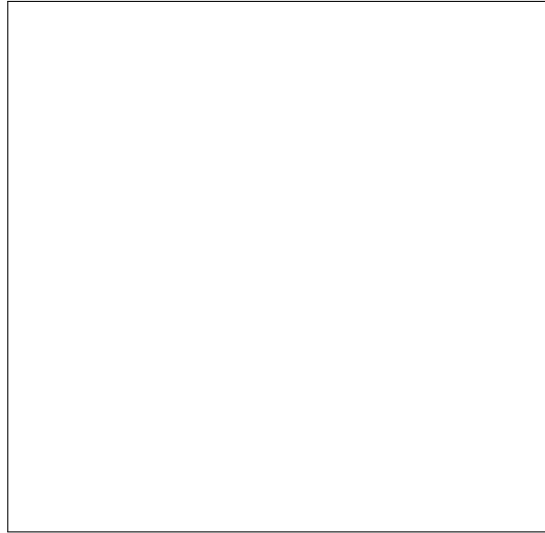


Figure 7.6: Illustration for example ??

The uphill-downhill distinction can also be mapped onto the human body, as in (6). These designations are used regardless of the orientation of a person, thus instantiating an exception to the topography-based system.

- (6) a. *mo=ha* *keŋ=ci*
 downhill=NMLZ.NSG tooth=NSG
 ‘lower teeth’
 b. *to=ha* *keŋ=ci*
 uphill=NMLZ.NSG tooth=NSG
 ‘upper teeth’

Things look slightly different on the horizontal plane: in example (7a), two houses are identified that are both on the same altitude level as the interlocutors. The house further away is referred to as *yona*, the closer

one is *khe*, a distinction most closely rendered by ‘there, thither’ and ‘here, hither’ in the English translation (see also Figure ??, which features *mo* and *to* as well). In Figure ??, the couple in the foreground represents the speech situation.

- (7) a. *eh, khe=na* *paŋ menna,*
 oh across_here=NMLZ.SG house NEG.COP=NMLZ.SG
yo=na=le
 across_there=NMLZ.SG=CTR
 ‘Oh, not the closer house, the next one!’
- b. *mela=be yo khe*
 market=LOC across_there across_here
son-ca-saŋ
 look-V2.EAT-SIM
 ‘Looking around in the market, ...’ [01_leg_07.152]

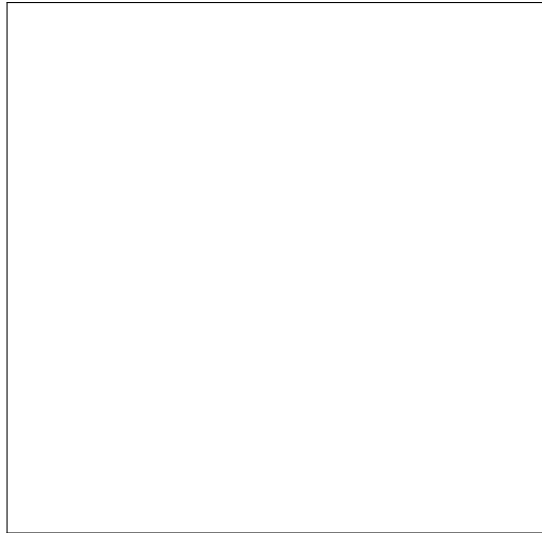


Figure 7.7: The transposed system in practice

The quadrant indicated by *yo* is always beyond some (real or imagined) boundary on the horizontal level, i.e. it is projected from a zero

point that must be distinct from the speech situation. The space between that boundary and the speech situation is the field indicated by *khe*.⁷ In example (7a), the utterance context is relevant for the interpretation of *yo* and *khe*,⁸ while this is not the case for the *mo/to* distinction in (6b), for instance. As mentioned above, the *yo/khe* contrast can also be used generically, independent of any particular utterance context, as in example (7b).

As the /u/-forms always rely on information that is retrievable from the utterance context, they are not compatible with the reportative marker =*bu*. Thus, while (8a) is perfectly fine, (8b) is pragmatically awkward.⁹ Another example for /o/-forms combining with =*bu* is ?? above.

- (8) a. *to=na minuma*
 uphill=NMLZ.SG cat
 lukt-a-khy-a=na=bu?
 run[3SG]-PST-V2.GO-PST=NMLZ.SG=REP
 ‘It was said that the upper cat ran away?’
- b. ?*tu-nna minuma*
 this_uphill cat
 lukt-a-khy-a=na=bu?
 run[3SG]-PST-V2.GO-PST=NMLZ.SG=REP
 Intended: ‘It was said that the cat up there ran away?’

The examples in (9) show that the proximal/distal demonstratives (see §??) and the ‘uphill’/‘downhill’ demonstratives are not mutually exclusive; they can be used together in one syntagm. The former indicate proximity or distance to the speaker, while the latter locate the objects with respect to each other and the cline of the hill. In (9a), the zero

⁷ In this light, it also makes sense that *khe* is never used in opposition to *yu*. A *khe*-quadrant opens up only when the zero point for the projection is transposed, while the field indicated by *yu* projects directly from the speech situation.

⁸ Note that it is not the case that *yona* always refers to the object between an upper and a lower object (the same is true for Belhare, see Bickel2001Deictic). If the speakers were standing on the level of the lower house, the demonstrative referring to it would change from *mona* to *yona*.

⁹ The reportative marker can also be found on embedded speech, both direct and indirect; see also §?? and §??.

point is located between the upper and the lower rocks of a group of rocks, and in (9b), the zero point is located in the middle of the road.¹⁰

- (9) a. *na mo=na lunxhwak*
 this downhill=NMLZ.SG stone
 ‘this lower rock (of a group of rocks)’ [37_nrr_07.031]
- b. *mo=na u-lap, to=na*
 downhill=NMLZ.SG 3SG.POSS-wing uphill=NMLZ.SG
 u-lap, na lambu ghak ak=ka=i!
 3SG.POSS-wing this road all 1SG.POSS=GEN=EMPH

‘The uphill side, the downhill side, this road is all mine!’
 [36_cvs_06.206]

The examples in (10) illustrate abstractions away from the closest hill as the anchoring element. In (10a), *mu* refers to a place outside the hills and far away (Germany). In (10b), via reduplication of the initial CV-cluster, the root intensifies its meaning, i.e. *tutunna* refers to an object further away than *tunna*. These reduplications are also found in the corresponding adverbs (see §?? below).

- (10) a. *mu, [...] nniŋ=ghe i=ha*
 downhill [...] 2PL.POSS=LOC what=NMLZ.NSG
 cog-wa-m-g=ha?
 do-NPST-2PL.A-2=NMLZ.NSG
 ‘Downhill, where you live, what do you do (when someone dies)?’ [29_cvs_05.008]
- b. *tunna cokcoki=nun tu-tunna cokcoki*
 that_uphill star=COM REDUP-that_uphill star
 ‘the star up there and the star even further up’

¹⁰ As the proximal/distal demonstratives *na/nna* show a functional overlap with *khen* and *yona*, these two sets are not expected to occur together.

7.3 Adverbs

This section discusses the adverbs that belong to the geomorphic orientation system. In §?? a set of adverbs has been introduced that is based on a proximal/distal/anaphoric distinction. The adverbs discussed in the following are based on the same distinctions between /o/-forms and /u/-forms as the demonstratives discussed in §?? above. Tables ?? and ?? provide an overview of all geomorphic adverbial expressions in Yakkha.

Table 7.3: Geomorphic adverbs, the /u/-forms

	UP	ACROSS	DOWN
LOC/INTERJ	<i>tu</i>	<i>yu</i>	<i>mu</i>
LOC-PROX	<i>tunhe</i>	<i>yunhe</i>	<i>munhe</i>
LOC-DIST	<i>tunnhe</i>	<i>yunnhe</i>	<i>munnhe</i>
LOC-DIST-EMPH	<i>tutunnhe</i>	<i>yuyunnhe</i>	<i>mumunnhe</i>

Table 7.4: Geomorphic adverbs, /o/-forms and *khe*

	UP	ACROSS PROX	DIST	DOWN
LOC/DIR	<i>to</i>	<i>khe</i>	<i>yo</i>	<i>mo</i>
DIR	<i>tokha?la</i>	<i>khekha?la</i>	<i>yokha?la</i>	<i>mokha?la</i>
ABL/DIR	<i>tondaŋ</i>	<i>khendaŋ</i>	<i>yondaŋ</i>	<i>mondaŋ</i>
LEVEL	<i>topparik</i>	<i>khepparik</i>	<i>yopparik</i>	<i>mopparik</i>
LEVEL-ABL	<i>topparindaŋ</i>	<i>khepparindaŋ</i>	<i>yopparindaŋ</i>	<i>mopparindaŋ</i>
QUANT	<i>torok</i>	<i>kherek</i>	<i>yorok</i>	<i>morok</i>
QUANT-EMPH	<i>to?torok</i>	<i>khe?kherek</i>	<i>yo?yorok</i>	<i>mo?morok</i>
LOC-PROX	<i>na?to</i>	<i>na?khe</i>	<i>na?yo</i>	<i>na?mo</i>
LOC-DIST	<i>nna?to</i>	<i>nna?khe</i>	<i>nna?yo</i>	<i>nna?mo</i>
LOC-PROX-QUANT	<i>na?torok</i>	<i>na?kherek</i>	<i>na?yorok</i>	<i>na?morok</i>

The adverbs based on the proximal/distal distinction are *nhe* ‘here’ (see (11a)) and *nnhe* ‘there’ (with initial gemination of the nasal). The

adverb *nnhe* is used to refer to distant locations and to locations in another deictic field, as it is opened up by a movie, for instance (see (11b) from a pear story) or by talking on the phone. The anaphoric form is *honnhe* ‘just there, at a location mentioned earlier’ (see also §??).

- (11) a. *imin=na, haku nhe, hen=se; haku*
 how=NMLZ.SG now here today=RESTR now
soʔ-ma=na=lai!
 look-INF[DEONT]=NMLZ.SG=EXCLA
 ‘How is he; now he (the prospective groom) is here, only
 today; now we have to look at him!’ [36_cvs_06.374]
- b. *qhakani=be s-wa, nnhe eko*
 basket=LOC look-NPST[3SG.P] there one
man=na
 COP.NEG=NMLZ.SG
 ‘He looks into the basket, and there is not even one.’
 [34_pea_04.040]

These proximal and distal adverbs can be specified further by combining them with the /u/-forms of the geomorphic set, in the same way as it has been shown above for the demonstratives. Both sets rely on the utterance context, and are, therefore, compatible. Altogether, one arrives at three more forms for each ‘here’ and ‘there’: *tunhe/tunnhe* ‘up here/there’, *munhe/munnhe* ‘down here/there’ and *yunhe/yunnhe* ‘across here/there’. The resulting complex forms are illustrated by the examples in (12).

- (12) a. *ηkha=nun nhe gobar, pik=ka u-hi,*
 that=COM here cow_dung cow=GEN 3SG.POSS-shit
bachi=ga, goru=ga men=na, munhe
 COW=GEN OX=GEN NEG.COP=NMLZ.SG down_here
khaʔla yun-ma=hon tika
 like_this put-INF=SEQ blessing
waʔ-meʔ-ma
 wear-CAUS-INF[DEONT]
 ‘With this (*dubo* grass), here, cow dung, from a female cow,

not from an ox, one has to place it down here like this and apply a blessing (at the main door of the house).’

[31_mat_01.089]

- b. *munthe sombare daju=ge*
 down_there Sombare eB=LOC
η-waʔ=ya=ci=bu, hau jeppa!
 3PL-exist=NMLZ.NSG=NSG=REP EXCLA really
 ‘Oh! Sombare brother down below has some (mushrooms), they say, really!’
 [13_cvs_02.079]

- c. *ka=go tunthe bhitta=be*
 1SG=TOP up_there wall=LOC
heʔ-ma-sy-a-η=na=le,
 cut-INF-AUX.PROG-PST-1SG=NMLZ.SG=CTR
a-na=ηa, uks-a-ga=i,
 1SG.POSS-eZ=ERG come_down-IMP-2=EMPH
uks-a ly-a-η=hon
 come_down-IMP tell-PST-1SG=SEQ
 ‘I was cutting (grass) up there at the wall, but my elder sister said: please come down, come down, ...’
 [28_cvs_04.315]

As example (13) shows, the /u/-forms can also be used independently, in adverbial function.

- (13) *mu jetha=ηa biha cog-a*
 down first_born_male=ERG marriage do[3SG]-SBJV
bhon, mu jetha=ηa
 COND down first_born_male=ERG
hiη-ma=na
 support-INF[DEONT]=NMLZ.SG
 ‘If Jetha down here marries a girl, he has to care for her.’ (pointing to someone sitting in the same room as the speaker, but in the corner pointing downhill)
 [28_cvs_04.127]

A natural example of a reduplicated form is shown in (14). Typically, the reduplicated forms contrast an object further away with a closer ob-

ject. In this example, however, the emphasis usually connected to this reduplication is not very strong; in the afterthought at the end of the sentence, the simple form *tunnhe* is used.¹¹ For instance, if the speaker points downhill towards two houses, the closer location is indicated by *munhe* ‘down there’ and the one further down is indicated by *mu-munhe* ‘further down there’.

- (14) *ka ηkha?la bhoŋ tu-tunnhe*
 1SG like_that COND REDUP-there_uphill
bhauju=ghe wa-ya-masa-η=na raecha,
 sister-in-law=LOC be-PST-PST.PRF-1SG=NMLZ.SG MIR
tunnhe=ba
 there_uphill=EMPH
 ‘If it is like that, I had been uphill at my sister-in-law’s house,
 just up there.’ [36_cvs_06.399]

The /o/-forms are used when the zero point is not located within the speech situation. Thus, they cannot combine in one word with the deictic forms *nhe* and *nnhe*. They can combine with other morphology, e.g. with case markers, to convey a variety of spatial notions, such as ablative and directive, shown in (15). The roots *mo*, *to* and *yo* are inherently locative, so that they cannot combine with the locative *=pe* (for instance, **mobe* is ungrammatical). Forms as in (15a) can be used both with an ablative and a directive reading.

- (15) a. *mondan ky-a=na.*
 from_below come_up[3SG]-PST=NMLZ.SG
 ‘He came up from below.’
 b. *yondan eko mamu a-cya*
 from_over_there one girl 1SG-child
we=ppa=?lo!
 exist[3SG;NPST]=EMPH=EXCLA
 ‘(But) I have a daughter from (my ex-husband) over there!’
 [06_cvs_01.018]

¹¹ The mirative (see §??) is used here because the speaker finally remembers where she had been at a particular day some weeks prior to this conversation.

- c. *tokha?la khy-a!*
 upwards go-IMP
 ‘Go upwards!’

The contrast between *yo* and *khe* (see also Figure ?? above) can be illustrated by the following context: the two villages Madi Rambeni and Madi Mulkharka are both located on a hill next to the hill on which Tumok is situated (see also the Map in Figure ?? in §??). These two hills are separated by a river (the Maya Khola), and thus both Madi Rambeni and Madi Mulkharka qualify as *yo* ‘across’ from Tumok. Both villages are roughly on the same altitude level as Tumok, but while Madi Mulkharka is right across (one can see its houses), Madi Rambeni is further away and out of sight. Thus, in a conversation (in Tumok) contrasting the two villages, Madi Mulkharka would be indicated by *khe*, while Madi Rambeni would be referred to by *yo*, since it is further away from Tumok than Madi Mulkharka.

Another set of adverbs is instantiated by adverbs such as *mopparik* ‘right below’ in (16). It refers to a place that is right below the point of reference, like a lower floor or a lower step on a ladder (*-parik* comes from the Nepali noun *paṭī* ‘side’).¹² This set of adverbs, like the forms in (15), can also be used as postpositions (see §?? below).

- (16) *honna sem-khuba babu, pheri, i=?lo*
 that_very pluck-NMLZ boy again what=EXCLA
mopparik jhar-a
 right_below descend-NATIV
cok-ma-sy-a=na
 do-INF-AUX.PROG-PST[3SG]=NMLZ.SG
 ‘That guy who was plucking, he was climbing down (the ladder).’
 [34_pea_04.036]

Furthermore, there are forms ending in the syllable *-rok* ~ *-rek*, i.e. *morok*, *torok*, *yorok* and *kherek*. They convey that something is located

¹² The change of coronal plosives to rhotics in intervocalic position is also attested elsewhere in the language, and closing a word-final CV syllable with /k/ is a common process in the ‘Yakkhification’ of lexical material from Nepali, see §??.

(or moving) a bit more in the respective direction than had been presupposed, thus quantifying the distance (see (17)). Example (18) illustrates the same with ablative forms.

- (17) a. *honkha?niŋŋa na?masek khi-khuwa yapmi=ci*
 that_very_time night fight-NMLZ person=NSG
yorok torok ŋ-wa-ya-masa
 a_bit_further a_bit_up 3PL-be-PST-PST.PRF
 ‘At that time, those fighting people had been (scattered) a bit further away and a bit further uphill.’ [41_leg_09.057]
- b. *nna ten=be=jhen, mo, yondan*
 that village=LOC=TOP down from_across
morok=ŋa limbu=ci=ca
 a_bit_down=INS Limbu_person=NSG=ADD
ŋ-wa-ya-ma
 3PL-be-PST-PRF
 ‘In that village below, across and then a bit below from there, Limbu people were living, too.’ [22_nrr_05.009]
- (18) a. *mondan kham ket-u-eba*
 from_below ground bring_up-3.P[IMP]-POL.IMP
 ‘Bring up mud from below.’
- b. *miyan morondan*
 a_little from_further_below
ket-u-eba
 bring_up-3.P[IMP]-POL.IMP
 ‘Bring it up from a bit further below.’ (Context: the mud is better further downhill.)

The adverbs ending in *-rok~ -rek* can also be partly reduplicated, yielding forms like *mo?morok* or *to?torok*. Tentatively, in analogy to the reduplications discussed above, I conclude that this amplifies the distance, too, but there are not enough examples in my data for any strong claims. The reduplicated forms are also used when nothing has been presupposed (cf. also §?? on postpositions).

- (19) *beuli singara cok-se miyan yo?yorok*
 bride a_wedding_custom do-SUP a_little a_bit_further
ŋ-ghet-wa
 3PL.A-take-NPST[3.P]
 ‘To dress the bride with the sari that the groom got her, they
 take her a bit further away.’ [25_tra_01.043]

The last set of adverbs introduced here has the forms *na?mo*, *nnamo*, *na?yo*, and so on. They are composed of the singular forms of the proximal/distal demonstratives and the /o/-forms, conveying ‘down here’, ‘down there’, ‘across here’ and so on (see Table ??). The cognate forms in Belhare are demonstratives that are marked for environmental case (see Bickel2001Deictic). The environmental case system was probably present in earlier stages of Yakkha, too, but apart from these adverbial forms, there is no trace of such a system synchronically. The forms have characteristic stress, i.e. on the first syllable. They locate the utterance context from the perspective of another location. In (20a), the zero point is Manglabare, a place above Tumok (the place of speaking, referred to by *na?mo* ‘down here’). In (20b), the point of reference is the sky, mentioned in the adverbial clause. The sentence in (20c) was uttered by someone who confused two roads, and the point of reference is the point of departure of the speaker’s movement, before she confused the roads.

- (20) a. *haku nnakha lalubaŋ=nun phalubaŋ=ga*
 now those Lalubang=COM Phalubang=GEN
ten=go na?mo=maŋ sa,
 village=TOP down_here=EMPH COP.PST[3SG]
eŋ=ga=e
 1PL.INCL.POSS=GEN=LOC
 ‘Now, that village of Lalubang and Phalubang, though, was
 down here, in our area.’ [22_nrr_05.034]
- b. *na taŋkheŋ=be pes-a-khy-a-ma=nina*
 this sky=LOC fly-PST-V2.GO-PST-PRF[3SG]=CTMP
na?mo heko=ha nwak=ci=ŋa haku
 down_here other=NMLZ.NSG bird=NSG=ERG now

- nda nhe uη-ma*
 2SG here come_down-INF
n-dokt-wa-ga-n=na
 NEG-get_to_do-NPST-2.A[3.P]-NEG=NMLZ.SG
n-lu-ks-u
 3PL.A-tell-PRF-3.P[PST]
 ‘When he flew up into the sky, down here the other birds
 told him: Now you will not get the chance to come down
 here any more.’ [21_nrr_04.034-5]
- c. *naʔyo=le sa-η=na, nnaʔyo=le*
 over_here=CTR COP.PST-1SG=NMLZ.SG over_there=CTR
khy-a-η=na?
 go-PST-1SG=NMLZ.SG
 ‘But I was over here, did I go over there?’ [28_nrr_04.030]

With the introduction of these forms, one arrives at two sets that are translatable as ‘down/up/across here’ and ‘down/up/across there’, for instance *naʔmo* and forms like *munhe* for ‘down here’. The contrast between forms like *naʔmo* and *munhe* is, of course, the zero point. While *naʔmo* implies a perspective from a location outside the speech situation (see (20) and (21)), *munhe* refers to a location in the downhill quadrant, as projected from the perspective of the speaker (see e.g. examples ??–(c) above). The speaker can choose whether he wants to locate objects from his own perspective or from someone else’s perspective, and sometimes this is fixed by sociolinguistic conventions. In imperatives, for instance, it would be inappropriate to use one’s own perspective, they are always expressed with /o/-forms, as in (21).

- (21) a. *naʔyo ab-a*
 over_here come_across-IMP
 ‘Come over here (from where you are).’
 b. *naʔmo uks-a*
 down_here come_down-IMP
 ‘Come down here (from where you are).’

The ‘quantifying’ or ‘degree’ derivation via *-rok* that was introduced

above is also possible with *na?to* (and the related forms), yielding forms like *na?torok* ‘a bit closer up here’.

7.4 Postpositions

The geomorphic postpositions are formally identical to the adverbs described in §??. They take nominal complements that are marked by the genitive case (see §??). The possessive prefix is, however, not possible on these postpositions, which distinguishes them from relational nouns (cf. §??). Table ?? provides an overview on the postpositions.

Table 7.5: Geomorphic postpositions

POSTPOSITION	GLOSS	INTERNAL STRUCTURE
<i>mopparik</i>	right below	‘downhill-side[Nep.]’
<i>topparik</i>	right above	‘uphill-side[Nep.]’
<i>yopparik</i>	right across	‘across-side[Nep.]’
<i>mokha?la</i>	below, downwards	‘uphill-DIR’
<i>tokha?la</i>	above, upwards	‘uphill-DIR’
<i>yokha?la</i>	across, away	‘across-DIR’
<i>mondan</i>	from below	‘downhill-ABL’
<i>tondan</i>	from above	‘uphill-ABL’
<i>yondan</i>	from the same level	‘across-ABL’
<i>mo?morok</i>	a bit below	
<i>to?torok</i>	a bit above	
<i>yo?yorok</i>	a bit further away	
<i>khe?kherek</i>	a bit closer	

The postpositions *mopparik* and *topparik* indicate a relation of parallel planes located above/below each other, such as stacked books or floors of a house (see (22a)). Example (22b) shows a corresponding adverbial in a (semi-transparent) ablative form.¹³ The same is possible

¹³ In analogy to these examples, one could assume that there is also a directional *topparikha?la/mopparikha?la* to indicate directedness towards an upper/lower level, but such forms do not exist. Probably, *topparik* (and related forms) also have a

with *yopparik* and *khepparik* on the horizontal level.

If the speaker wants to express that an object is oriented towards a particular direction, the directional forms *tokha?la*, *mokha?la*, *yokha?la* and *khekha?la* are used; orientation away from another object is indicated by the ablative forms *tondaŋ*, *mondaŋ*, *yondaŋ* and *khendaŋ* (see (23)).

- (22) a. *tebul=ga mopparik*
 table=GEN right_below
 ‘below the table (on a lower level, e.g. on the ground)’
 b. *kancin mopparindaŋ ky-a-ci=ha*
 1DU from_right_below come_up-PST-DU=NMLZ.NSG
 ‘We came up from the lower floor.’
- (23) a. *tebul=ga tokha?la*
 table=GEN upwards
 ‘above the table (e.g. a lamp installed on the wall)’
 b. *tebul=ga mondaŋ chwigam*
 table=GEN from_below chewing_gum
kept-u=na
 glue-3.P[PST]=NMLZ.SG
 ‘Someone stuck chewing gum below the table.’

The partly reduplicated forms *mo?morok*, *to?torok* and *yo?yorok* convey that an object is located a bit in the respective direction, from the perspective of the object referred to by the complement noun (see (24)).

- (24) a. *uŋci-paŋ=ga mo?morok eko hoŋma*
 3NSG.POSS-house=GEN bit_downhill one river
wei-sa=na
 exist-PST[3SG]=NMLZ.SG
 ‘A bit downhill from their house there was a river.’
 [01_leg_07.283]
- b. *hon=na yuktham=ga yo?yorok*
 that_very=NMLZ.SG place=GEN bit_further

directional meaning.

khe?kherek
bit_closer
'around that place/the surroundings of that place'
[01_leg_07.269]

7.5 Motion verbs

Several motion verbs have also lexicalized the uphill/downhill distinction, as shown in example (25) and in Table ?? . Event specification with regard to the topography is highly frequent. Even though neutral forms are available (also included in the table), the pragmatically expected forms are those specifying the event for the *mo/to/yo* distinction. This specificity reaches well beyond 'classical' motion events. Small-scale motions, too, like putting, repairing, stacking, looking, turning or calling are often precisely specified with respect to their spatial orientation. This is achieved by means of complex predicates with different function verbs (see (25b) and Table ?? in Chapter ??). Motion away from a point of reference is not specified with respect to the topography, there are only the neutral verbs 'go' and 'carry off'. This is unexpected pragmatically: in motion events towards a point of reference, the speaker and the hearer are usually identifiable, and with them, the direction of the movement. In motion events away from a point of reference, as in 'go' and 'carry off', the direction of the movement is less predictable, and therefore, it would be more important pragmatically to specify events of going with regard to the topography-based distinctions.

Table 7.6: Geomorphic distinctions in motion verbs

	COME	BRING
NEUTRAL	<i>ta</i> 'come' (from a greater distance)	<i>ta?</i> 'bring'
NEUTRAL	<i>khe?</i> 'go'	<i>khet</i> 'carry off'
UP	<i>ke?</i> 'come up'	<i>ket</i> 'bring up'
ACROSS	<i>ap</i> 'come' (same level, small distance)	<i>apt</i> 'bring'
DOWN	<i>uks ~ uη</i> 'come down'	<i>ukt</i> 'bring down'

- (25) a. *kanciŋ to tub-i=hoŋ*
 1PL up meet-1PL=SEQ
uks-a-ŋ-ci-ŋ=hoŋ yo
 come_down-PST-EXCL-DU-EXCL=SEQ across
tas-a-ŋ-c-u-ŋ=ba
 arrive-PST-EXCL-DU-3.P-EXCL=EMPH
 ‘Having met uphill (many people), we (two) came down
 (home) and arrived across (at a neighbour’s house on the
 same level as the speaker’s home).’ [36_cvs_06.395]
- b. *na eko=ŋa=go*
 this one=ERG=TOP
thend-u-get-uks-a=ba, *nna, om*
 lift-3.P-V2.BRING_UP-3.P-PRF-PST=EMPH that bright
leks-a=nina
 become-PST[3SG]=CTMP
 ‘One of them lifted it (the rock) and carried it up (holding
 in his hands, not carrying on his back), while the sun came
 out.’ [37_nrr_07.086]

These topography-specific verbs are only compatible with suitable adverbial expressions. For instance, *apma* ‘come over’ can only be used with *yondaj* ‘from a location on the same altitude level’. Interestingly, this verb is also used when ‘coming over’ implies climbing down 800 meters, crossing a river and then climbing up on the other side again.

8 Verbal inflection

This chapter deals with the inflectional morphology of the Yakkha verb. Word formation on the verb level is treated in Chapter ?? on complex predicates, and in §?? on transitivity operations.

The verbs can be grouped according to their stem forms and alternations (treated in §??). Most verbal roots have a pre-vocalic and one or more pre-consonantal forms. There are lexical alternations and those that can be explained with morphophonological processes such as elision, voicing and assimilation.

Yakkha verbal inflection is highly polysynthetic and overwhelmingly suffixing; the verb can carry up to seven suffixes, while there is only one prefix slot. The finite verb is inflected for person and number of subject and object (treated in §??), polarity (§??), tense/aspect (§??) and mood (§??). Politeness or honorific distinctions are not grammaticalized in the Tumok dialect, except for the imperative, which has an additional politeness register. In the Dandagaun dialect, there is an honorific construction which is calqued upon the Nepali honorific verbal inflection (§??). The inflection of the copular verbs slightly deviates from the regular verbal inflection; it is treated in §??. Two further verbal markers that do not fit elsewhere (the nativizer *-a* and the knowledge marker *-les*) are treated in §??. The finite verb stands in opposition to infinitives, converbs and nominalizations that are restricted to polarity and, occasionally, number inflection (see §??).

Table ?? shows an overview of the most important verbal affixes in the regular verbal paradigm, and Table ?? shows schematically how all markers are distributed over the inflectional slots. Except for some idiosyncrasies in the inflection of copulas, there are no inflectional classes; all differences in inflectional behavior can be explained by morphophonology.

Table 8.1: Overview of the major verbal inflectional markers

PERSON-NUMBER	
<i>-ŋ</i>	1
<i>-ka</i>	2
<i>-u</i>	3.P
<i>-nen</i>	1>2
<i>-i</i>	1/2 plural
<i>-ci</i>	dual or 3 nonsingular P
<i>N-</i>	3 plural S/A
<i>=na</i>	singular
<i>=ha</i>	nonsingular or non-countable
TENSE-ASPECT	
<i>-me?/-wa</i>	nonpast
<i>-a</i>	past
<i>-ma/-uks</i>	perfect
<i>-masa/-uksa</i>	past perfect
<i>-si?</i>	progressive
NEGATION	
<i>N-...-n</i>	
<i>-nin</i>	plural negation
MOOD	
<i>-a</i>	imperative/subjunctive
<i>-ni</i>	optative
INFINITIVE	
<i>-ma</i>	infinitive

8.1 Stem formation

Yakkha verbal roots either have the simple shape (C)V(C), or a complex shape (C)V(C)-s or (C)V(C)-t, carrying one of the coronal augments -s and -t (~ -d ~ -r ~ -ʔ), which can be traced back to valency-increasing suffixes. Such augments can be found throughout Kiranti, but they also have cognates in e.g. Jinghpo, Written Tibetan, Magar, Chepang, some West Himalayaish languages and Qiangic languages (Matisoff2003Handbook).¹

From a synchronic perspective, except for a handful of stems,² the distribution of the augments is not relatable to valency change, and hence they cannot be analyzed as synchronic grammatical suffixes. The augment -s surfaces only in inflected verb forms, and only before vowels and /w/ (see (1a)). The augment -t is also found before vowels and /w/ (see (1b)). When the pre-augmented root has CV structure, this augment may surface before other consonants as well, apparently having been re-analyzed as part of the stem (always as [ʔ] before C, compare (1c) with its citation form). Yakkha verbal stems never start with consonant clusters, which supports the analysis of complex onsets as originating in bisyllabic structures.

- (1) a. *khem-ma yas-u=na*
 hear-INF be_able-3.P[PST]=NMLZ.SG
 ‘He could hear it.’ (citation form: *yama*)
- b. *chimd-u=na*
 ask-3.P[PST]=NMLZ.SG
 ‘He asked her.’ (citation form: *chimma*)
- c. *thur-u=na*
 sew-3.P[PST]=NMLZ.SG
 ‘He sewed it.’ (citation form: *thuʔma*)

Yakkha verbs can formally be grouped into intransitively and transitively inflected verbs. Several verb pairs are homophonous, but they

¹ The term (*stem*) *augment* is well established in the Kiranti descriptive tradition, so I decided to keep with it in this work.

² See §??.

have different valencies, e.g. *hot* ‘cough’/‘pierce’, or *ap* ‘come’/‘shoot’. In §??, the different root types will be presented; §?? deals with the morphophonological behavior of the stems (for a detailed account of the morphophonology see §??).

A few stems in Yakkha are not monosyllabic. Historically they were bimorphemic (with both noun-verb and verb-verb combinations), but their etymology is at most partially transparent. Examples are *ta-rokt* ‘start’ and *ya-rokt* ‘get to know, get informed’, both containing the stem *tokt* ‘get’ (its word-internal allomorph [rokt]). Other examples are *na-hend* ‘be jealous’, where *na* could be ‘nose’ (but *hend* is not attested as independent verb), *themd-(n)i* ‘compare’ and *hes-ca* ‘defeat’.³ The structure of the morphemes clearly reveals that they are verbal stems historically, but an independent meaning could not be established.⁴

8.1.1 Stem types

8.1.1.1 Unaugmented roots

Unaugmented roots can have open ((C)V) or closed ((C)VC) structure, with CV? roots behaving exceptionally. Table ?? lists some verbs with unaugmented roots. Note that in most cases the stem surfaces as it is in the citation form (except for CVn stems, which change to CVm). This is not the case with augmented stems, as will be discussed in the following section.

The consonants in the underlying forms of the roots may undergo voicing and regular assimilations when inflectional morphology attaches to them (discussed in §??). Verbs of the underlying structure /CV?/ behave exceptionally, since the root-final /ʔ/ gets deleted in the inflection, and the root vowels are less resistant to deletion, too. They may change into glides (/kheʔ-a/ becomes [khyə], /piʔ-a/ becomes [pyə]) or be deleted (/soʔ-wa/ becomes [swa]). Comparison with the closely related Chintang and Belhare languages shows that the Yakkha /CV?/

³ The stems are written with dashes to indicate the former morpheme boundary, which is still transparent since in all verbs one component is still relatable to an existing morpheme.

⁴ For transparent noun-verb predicates and verb-verb predicates see Chapters ?? and ??, respectively.

Table 8.3: Unaugmented roots (CV, CV?, CVC)

ROOT	CITATION FORM	GLOSS
<i>ca</i>	<i>cama</i>	‘eat’
<i>khi</i>	<i>khima</i>	‘quarrel’
<i>u</i>	<i>uma</i>	‘enter’
<i>a</i>	<i>ama</i>	‘descend’
<i>soʔ</i>	<i>soʔma</i>	‘look’
<i>hap</i>	<i>hapma</i>	‘cry’
<i>cok</i>	<i>cokma</i>	‘do’
<i>uŋ</i>	<i>uŋma</i>	‘drink’
<i>um</i>	<i>umma</i>	‘suck’
<i>cen</i>	<i>cemma</i>	‘chop, cut’

roots originate in *CVt historically. In Belhare, cognates to Yakkha /CVʔ/ roots have the form /CVr/ (**Bickel1997Dictionary**); in Chintang, they have the form /CVD/ (CVd in **Raietal2011_Chintangdict**).

When open roots are followed by a vowel in the verbal inflection, either a glide [y] is inserted or the vowel of the suffix gets deleted (for details see §??). The verb *cama* behaves exceptionally in showing ablaut (with the suppletive root [co]).

8.1.1.2 Augmented roots

The two coronal augments *-s* and *-t* (~ *-d* ~ *-r* ~ *-ʔ* in Yakkha) are typical of Kiranti stem structure. Historically, they had a transitivity function (**Sprigg1985The-Limbu**; **Michailovsky1985Tibeto-Burman**; **Driem1989_Reflexes**; **Matisoff2003Handbook**; **Bickel2003Belhare**; **Bickeletal2007Free**), but synchronically, they are not productive anymore, except for *-t*, which plays a role in the benefactive derivation.⁵ Synchronically, only a handful of verbs still show correspondences between augmentation and in-

⁵ The benefactive is formed by a complex predicate, with the augment *-t* attached to the lexical root, followed by the V2 *-piʔ* ‘give’, see §??.

creased valency (cf. Table ?? in §??).⁶

Four groups of augmented roots have to be distinguished:

- (i) open roots with augment -s
- (ii) closed roots with augment -s, alternating between CVCs and CVN
- (iii) open roots with augment -r ~ -ʔ (*-t)
- (iv) closed roots with augment -t ~ -d

The roots of group (i) have the structure /CV-s/ (see Table ??). The augment surfaces only before vowels and /w/, e.g. *nisuna* ‘he saw it’ and *niswana* ‘he will see it’.

Table 8.4: Augmented roots (CV-s)

ROOT	CITATION FORM	GLOSS
<i>nis</i>	<i>nima</i>	‘see, know’
<i>yas</i>	<i>yama</i>	‘be able (to do)’
<i>cis</i>	<i>cima</i>	‘cool down’
<i>us</i>	<i>uma</i>	‘boil, be cooked’
<i>es</i>	(<i>hi</i>) <i>ema</i>	‘defecate’
<i>chus</i>	<i>chuma</i>	‘shrink’

Roots of group (ii) have the underlying structure /CVC-s/, and before consonants they have an alternant CVN, the nasal having the same place of articulation as the underlying consonant (see (2) and Table ??). While the deletion of the augment in group (i) above can be explained by phonology alone (no syllable boundaries of the shape [s.C] are allowed in Yakkha), the alternation in group (ii) between CVC and corresponding CVN is lexical, although it is triggered phonologically, too.

⁶ In Driem1994The-Yakkha and Gvozdanovic1987How the stem-final -t was analyzed as part of a past suffix (such a suffix indeed exists in some Western Kiranti languages). This was not confirmed by my data, and not even by the data in these sources (collected by Gvozdanović), since -t also appears in the nonpast paradigms there.

This group contains only two types of roots: those ending in /ks/ and those ending in /ps/. Stems ending in a nasal and the augment -s, as they are, e.g., known in Chintang and Belhare (Schikowski2012_Morphology; Bickel1997Dictionary), do not occur in Yakkha.⁷

- (2) a. *a-cya* *ips-a-khy-a=na*
 1SG.POSS-child sleep-PST-V2.GO-PST[3]=NMLZ.SG
 ‘My child fell asleep.’
 b. *im-khuba*
 sleep-NMLZ
 ‘sleeper’

Table 8.5: Augmented roots (CVC-s ~ CVN)

ROOT	CITATION FORM	GLOSS
<i>ips ~ im</i>	<i>imma</i>	‘sleep’
<i>tups ~ tum</i>	<i>tumma</i>	‘meet, find, get’
<i>ceps ~ cem</i>	<i>cemma</i>	‘recover, get well’
<i>sops ~ som</i>	<i>somma</i>	‘stroke’
<i>uks ~ uŋ</i>	<i>uŋma</i>	‘come down’
<i>paks ~ paŋ</i>	<i>paŋma</i>	‘send (people)’
<i>kaks ~ kaŋ</i>	<i>kaŋma</i>	‘accept, fall down’
<i>keks ~ keŋ</i>	<i>keŋma</i>	‘bear fruit, ripen’
<i>hiks ~ hiŋ</i>	<i>hiŋma</i>	‘turn around’

The roots of group (iii) have the structure /CV-r/, originating in *CV-t roots (cf. Table ??). In this group, the augments have been reanalyzed as part of the root. They surface (as [ʔ]) before nasal and lateral consonants, the verb *hema* ‘dry up’ being an unmotivated exception (see (3a) and Table ??).⁸ Before obstruents, the augment /r/ does not surface, which is the expected behavior. The augment -r surfaces before vowels

⁷ I could not detect regular correspondences between the CVNs stems found in Belhare, for instance, and any particular stem type in Yakkha: *hays* ‘send (things)’ corresponds to Yakkha *haks*, *homs* ‘swell’ corresponds to *homd*, and *hums* ‘bury’ corresponds to *hum* in Yakkha.

⁸ This behavior stands in contrast to the other groups of roots, where augments never

and /w/, in the first case resyllabified as onset of the first syllable of the suffix string (see (3b)). This group shows that roots with augmented *-t* and root-internal *-t* (cf. above) have undergone different developments historically, the first having become /CV-r/, and the second having become /CV-ʔ/ in present-day Yakkha. Thus, an infinitive of the shape CVʔ-ma can have the underlying roots /CVt/, /CVʔ/ or /CV-r/.

- (3) a. *men-niʔ-le*
 NEG-count-CVB
 ‘without counting’
- b. *ikhiŋ ucun=ha tephen*
 how_much nice=NMLZ.NC clothing
thur-uks-u=ha!
 sew-PRF-3.P[PST]=NMLZ.NC
 ‘He made such nice clothing!’

Table 8.6: Augmented roots (CV-r)

ROOT	CITATION FORM	GLOSS
<i>her ~ he</i>	<i>hema</i>	‘dry up’
<i>hor ~ hoʔ</i>	<i>hoʔma</i>	‘crumble, fall apart’
<i>nir ~ niʔ</i>	<i>niʔma</i>	‘count’
<i>por ~ poʔ</i>	<i>poʔma</i>	‘topple, fall, fell’
<i>pher ~ pheʔ</i>	<i>pheʔma</i>	‘open widely’
<i>thur ~ thuʔ</i>	<i>thuʔma</i>	‘sew’

The roots of group (iv) have the structure CVC-t ~ CVC-d, with either a plosive or a nasal preceding the augment (see Table ??). The augment, as expected, surfaces only before vowels and /w/, being resyllabified as onset of the first syllable of the suffix string (see (4)). Roots ending in /-nd/ are more prone to assimilation processes than the other roots. They assimilate in place of articulation to the following material, as the infinitives and (4c) show.

surface before consonants.

- (4) a. *chim-nen?*
ask-1>2
'May I ask you?'
- b. *chimd-a-ŋ!*
ask-IMP-1SG.P
'Ask me!'
- c. *uŋ-khuba yapmi*
pull-NMLZ person
'the pulling man' (root: /und/)

Table 8.7: Augmented roots (CVC-t)

ROOT	CITATION FORM	GLOSS
<i>ukt</i>	<i>ukma</i>	'bring down'
<i>tupt</i>	<i>tupma</i>	'light up'
<i>hokt</i>	<i>hokma</i>	'bark'
<i>cheŋd</i>	<i>cheŋma</i>	'stack, raise'
<i>und</i>	<i>umma</i>	'pull'
<i>hond</i>	<i>homma</i>	'fit into'
<i>chumd</i>	<i>chumma</i>	'shrink (clothes)'
<i>chimd</i>	<i>chimma</i>	'ask'
<i>homd</i>	<i>homma</i>	'swell'

There is one exception among the CVC-t roots, and these are roots of the form /CVt/, originating in *CVt-t roots historically. The final /t/ of unaugmented /CVt/ roots got reduced to a glottal stop (see §??), and the augment got reanalyzed as part of the root, yielding a root of the shape CV?-t, which became CVt. In closely related languages like Chintang and Belhare, these roots show a geminate /t:/ (**Bickel1997Dictionary; Bickeletal2007Free; Bickeletal2010Ditransitives**).⁹ Although synchronically there is only one consonant /t/ in Yakkha, the roots still show reflexes of their historical complexity. For instance, they do not undergo voicing between vowels (see (5)). In the citation forms, these roots surface as CV?, like the CV? roots (*CVt) and the CVr roots (*CV-t). Table

⁹ In **Raietal2011_Chintangdict** these roots are listed as ending in /t:/ (<>).

?? shows Yakkha /CVt/ roots and their cognates in Chintang and Belhare.

- (5) a. *ka phat-a-ŋ!* (not: **phadaŋ*)
 1SG help-PST-1SG
 ‘Help me!’
 b. *ka mit-a-ŋ!* (not: **midan*)
 1SG remember-PST-1SG
 ‘Remember me!’

Table 8.8: Chintang and Belhare cognates of Yakkha CVt roots

YAKKHA	GLOSS	CHINTANG	BELHARE
<i>khut</i>	‘bring to’	<i>khutt</i>	<i>khutt</i>
<i>khet</i>	‘carry off’	<i>khatt</i>	<i>khatt</i>
<i>ket</i>	‘bring up’	<i>katt</i>	n.d.
<i>met</i>	‘CAUS’	<i>mett</i>	<i>mett</i>
<i>mit</i>	‘think of, remember’	<i>mitt</i>	<i>mitt</i>
<i>lit</i>	‘plant’	<i>lett</i>	n.d.
<i>phat</i>	‘help’	<i>phatt</i>	<i>phatt</i> (‘exchange’)

The root types and their basic alternation patterns are schematically summarized in Table ??. In this table, “CV” should read “(C)V” in all instances. For assimilations see Table ??.

8.1.2 Morphophonological behavior of stems

The previous section has introduced the root alternations in their basic forms, grouped according to pre-vocalic and pre-consonantal behavior. Depending on which consonant or vowel follows the root, further processes such as assimilation, gliding and voicing may apply (see Table ??). Except for the alternation between CVC-s and CVN, and the somewhat exceptional behavior of CV? roots, all alternations can be ascribed to phonological processes.

The following processes can be noticed (cf. also §??): assimilation of root-final /n/, /p/ and /pt/ to a bilabial nasal (triggered by a bilabial

Table 8.9: Representation of the basic root allomorphy

	UNDERLYING FORM	BEFORE V/-wa	BEFORE C
UNAugmented ROOTS			
(a)	CV(C) CVʔ (< *CVt)	CV(C) CV	CV(C) CV(C)
Augmented ROOTS			
(b)	CV-s	CV-s	CV
(c)	CVC-s ~ (C)VN	CVC-s	CVN
(d)	CV-r	CV-r	CV (before obstr.) ~ CVʔ (before nas./liq.)
(e)	CVC-t CVt (< *(C)Vt-t)	CVC-t CVt	CVC CVʔ (before liq.) ~ CVC (elsewhere)

nasal), assimilation of root-final /k/ and /kt/ to a velar nasal (also triggered by a bilabial nasal), intervocalic and postnasal voicing (e.g. in /cok/ and /ap/). CV roots with an augment (e.g. /pes/, /her/ and /thur/) show that the augment almost never surfaces before consonants. Root-final /t/ and /ʔ/ easily assimilate to the following consonant.

Not only the quality of the subsequent sound, stress, too, plays a role in determining the allomorphs. If one compares roots followed by either *-khuba* (a nominalizer, not stressed) or *-kheʔ* (a function verb, stressed in the citation forms), we can see that the stressed *-kheʔma* has greater phonological impact on the preceding verbal root, since all root-final consonants become nasals before *-kheʔma*. The forms in brackets represent unconditioned variations.

8.2 Person, number and syntactic role marking

Intricate person marking systems are the hallmark of Kiranti languages. Yakkha is a “well-behaved” Kiranti language; the verb exhibits a complex indexing system, where person (1, 2, 3 and clusivity for first per-

Table 8.10: Examples of stem allomorphs, mostly phonologically conditioned

Σ	Σ - <i>khuba</i>	Σ - <i>khe?</i>	Σ - <i>me?</i>	Σ - <i>saŋ</i>	<i>meN</i> - Σ - <i>le</i>	Σ - <i>ci/-cu</i>	Σ - <i>wa</i>	Σ - <i>V</i>
<i>khe?</i>	khe(k)	-	khe(m)	khe	khe?	khe	-	khy (/ _a) khe (/ _i)
<i>so?</i>	so(k)	soŋ	so(m)	so(s)	so?	so	s	so
<i>cok</i>	cok	coŋ	coŋ	cok	jok	cok	cog	cog
<i>in</i>	in	iŋ	im	in	in	in	in	in
<i>ap</i>	ap	am	am	ap	ap	ap	ab	ab
<i>pes</i>	pe	peŋ	pe	pe	be	pe	pes	pes
<i>thur</i>	thu	thuŋ	thu	thu	thu?	thu	thur	thur
<i>her</i>	he	heŋ	he	he	he	he	her	her
<i>haks</i>	haŋ	haŋ	haŋ	haŋ	haŋ	haŋ	haks	haks
<i>hops</i>	hom	hom	hom	hom	hom	hom	hops	hops
<i>hakt</i>	hak	haŋ	haŋ	hak	hak	hak	hakt	hakt
<i>chimd</i>	chim	chim	chim	chim	chim	chim	chimd	chimd
<i>chept</i>	chep	chem	chem	chep	chep	chep	chept	chept
<i>mit</i>	mik	miŋ	mim	mis	mi?	mi?	mit	mit

son), number (singular, dual and plural, sometimes neutralized to non-singular) and syntactic role marking interact. The system is simply referred to as *person marking* in the following for the sake of readability. The person marking is overwhelmingly suffixing; there is only one prefix slot, which is filled by a homorganic and non-syllabic nasal (see (6)). In transitive scenarios, generally both arguments are marked on the verb, and hence the verbal inflection provides a clue about the transitivity of the verb.¹⁰ Due to morphophonological processes such as vowel elision to avoid hiatus, some morphemes undergo changes or are rarely overtly realized. Example (6) also illustrates a further morphophonological process in Yakkha and many other Kiranti languages, known as *suffix copying* or *nasal copying* (Bickel2003Belhare; Doornenbal2009A-grammar; Ebert2003Kiranti; Schikowski2012_Morphology). Nasal suffixes in Yakkha can be copied regressively and thus may ap-

¹⁰ Although there are mismatches between semantic and morphological valency, see Chapter ??.

pear up to three times in one suffix string (see §??).

- (6) *m-bi-me-n-c-u-n-ci-ŋa-n=na*
 NEG-give-NPST-[COPY]-DU-3.P-[COPY]-NSG.P-EXCL-NEG=NMLZ.SG
 ‘We (dual, exclusive) will not give it to them.’

The verbal inflection is the most complicated part of Yakkha morphology, not just because of the number of affixes, but also because there is no one-to-one mapping of form and function.¹¹ This asymmetry holds for both directions: one functional slot (i.e. the reference to one participant or one scenario) can be marked by a combination of affixes. The first person plural exclusive, for instance, is expressed by *-i*, *-ŋ* and (optionally) *=ha*. At the same time, many markers encode more than one category. The aforementioned *-i* contains the information that the co-nominal of the marker is a first or second person plural subject of an intransitive verb or a second person plural object of a transitive verb. Some markers encode only one category, like *-ka* for ‘second person’ or *-ŋ* for ‘exclusive’. Other markers are homophonous, like *-ci*, encoding either dual (any syntactic role) or nonsingular (only third person patients). These are two different markers, since they occupy separate slots in the suffix string. In a few other Kiranti languages, they have different shapes.¹² Ambiguities of affixes can usually be resolved via the morphological context in which the markers appear. Furthermore, a few person-number-role configurations have different markers depending on whether they are in the indicative, imperative or subjunctive mood.

Table ?? gives an overview of the person marking affixes in intransitive and transitive (indicative) inflection. Most affixes are restricted to certain syntactic roles. Some markers do not just encode the referential properties of one argument, but stand for whole scenarios, such as the portmanteau morphemes *-nen* marking first person acting on second, and *-m* marking first or second person plural acting on third person. A

¹¹ From a comparative Kiranti perspective, however, the Yakkha verbal inflection looks fairly simple and regular.

¹² Limbu, for instance, has *-si/-chi* for dual and *-si* for nonsingular patient (Driem1987A-grammar).

reference factor that shapes the person paradigm is the dominance of second person in scenarios with third person acting on second (3>2). Two examples for the influence of role must be mentioned here, too: firstly, the dual is not distinguished as consistently in the object marking as it is in the subject marking (both transitive and intransitive) and secondly, the loss of first person nonsingular object marking (from a historical perspective, discussed below).

Thus, the paradigm of person marking does not exhibit one particular alignment type but combinations of role-based (ergative, accusative, neutral) and reference-based or even scenario-based alignment, to be determined for each marker separately.¹³ In one scenario, two inflections are possible, namely 1PL.EXCL>2DU, where the suffix string *-nen-cin=ha* was regarded equally acceptable as *-nen-in=ha* by all speakers consulted.

Furthermore, the person inflection interacts with polarity, mood and tense/aspect markers, discussed further below. The cliticized markers *=na* and *=ha ~ =ya*, *~ =a* are nominalizers. In a manner that is common in Sino-Tibetan languages, they are frequently attached to the inflected verb, lending authority to assertions, or emphasis to questions (see Chapter ?? for a detailed analysis). Since they also encode number and role information, they are included in the discussion of person marking.

¹³ An alternative view would be to say that languages like Yakkha lack alignment altogether, following a definition of alignment as a property of a whole language instead of as a property of one construction or even one marker. However, the person forms do not appear randomly in the paradigm; one can discern certain groupings and patterns that are pretty consistent across the whole language family, and these would not be acknowledged by dubbing the language as ‘lacking alignment’ or ‘lacking grammatical relations’.

Table 8.11: Indicative person/number marking (intransitive and transitive)

A>P	TRANSITIVE						INTRANSITIVE
	1SG	1NSG	2SG	2DU	2PL	3SG	
1SG			-nen(=na)	-nen-cin(=ha) -nen-in(=ha)		-u-ŋ(=na)	-ŋ(=na)
1DU.EXCL			-nen-cin(=ha)			-ŋ-c-u-ŋ(=na)	-ŋ-ci-ŋ(=na)
1PL.EXCL						-u-m-ŋa(=na)	-i-ŋ(=ha)
1DU.INCL						-c-u(=na)	-ci(=ha)
1PL.INCL						-u-m(=na)	-i(=ha)
2SG	-ŋ-ka(=na)					-u-ka(=na)	-ka(=na)
2DU						-c-u-ka(=na)	-ci-ka(=ha)
2PL						-u-m-ka(=na)	-i-ka(=ha)
3SG	-ŋ(=na)	-ka(=na)			-i-ka(=ha)	-u(=na)	(=na)
3DU						-c-u(=na)	-ci(=ha)
3PL			N ⁺ ...-ka(=na)			N ⁺ ...-u(=na)	N ⁺ ...-ci(=ha)

The verbal morphology is templatic, with one prefix slot and eleven suffix slots for person and number, established according to the sequences in which the affixes occur relative to each other (see Figure ??). The longest suffix string found in the person inflection refers to the scenario 1DU.EXCL>3NSG and contains seven affixes, counting only the person suffixes (see (7a)); the shortest is third person singular (intransitive) and has only one optional slot, since third person singular subject indexing (both transitive and intransitive) does not have a dedicated marker (see (7b)).¹⁴

The schematic representation includes the slots for the nasal copying (-N). Slots no. 1, 3, 6, 13 and 14 are reserved for negation and TAM-marking; Slot 2 may contain either a person marker or a TAM marker.

- (7) a. *tund-a-η-c-u-η-ci-η(=ha)*
understand-PST-N-DU-3.P-N-3NSG.P-EXCL=NMLZ.NSG
'We (dual, excl.) understood them.'
- b. *khy-a(=na)*
go-PST(=SG)
'He went.'

2	4	5	7	8	9	10	11	12	(15)	(16)
<i>-nen</i>	<i>-N</i>	<i>-ci ~ -cin</i>	<i>-u</i>	<i>-N</i>	<i>-ci</i>	<i>-m</i>	<i>-η(a)</i>	<i>-ka</i>	<i>(=na)</i>	<i>(=ci)</i>
1>2	(copy)	DUAL	3.P	(copy)	3NSG.P	1/2PL>3	EXCL	2	NMLZ.SG	NSG
		<i>-i ~ -in</i>							<i>(=ha)</i>	
		1/2PL							NMLZ.NSG/	
									NMLZ.NC/	

Figure 8.1: Templatic representation of indicative person/number suffixes

In the following, proceeding from left to right, the individual affixes will be discussed. In general, the labels for the morphemes stand for

¹⁴ The parentheses signalling the optionality of these markers will not be written in the following, except for where their optionality is explicitly discussed. They are optional from a morphological perspective, but not from an information-structural perspective, since under certain conditions they have to occur.

a maximal extension, since it is often the case that a morpheme is not found in all the expected slots.

The prefix slot can only be occupied by an unspecified nasal, which either marks third person plural (in S and A roles) or negation (see §??). As it is unspecified with regard to the place of articulation, it assimilates to the place of the initial consonant of the verb stem (see (8)). Before vowels and the glide /w/, it is realized as a velar nasal.

- (8) a. *ŋ-khy-a=ha=ci*
 3PL-go-PST=NMLZ.NSG=NSG
 ‘They went.’
 b. *m-bi-a-ga=na*
 3PL.A-give-PST-2=NMLZ.SG
 ‘They gave it to you.’
 c. *n-chimd-a-ga=na*
 3PL.A-ask-PST-2=NMLZ.SG
 ‘They asked you.’
 d. *n-yog-a-ga=na*
 3PL.A-search-PST-2=NMLZ.SG
 ‘They searched for you.’

In the transitive paradigm, the prefix is not found in all expected scenarios; more precisely, it marks 3PL.A>2SG.P and 3PL.A>3.P. The only Kiranti language with a similar marker is Belhare, but there, the marker partly has NSG and 3>2 distribution (**Bickel2003Belhare**).¹⁵ The prefix domain is surprisingly compact in Yakkha, compared to most of the surrounding languages: Limbu has four prefixes (**Driem1997A-new-analysis**), Belhare has five prefixes (**Bickel2003Belhare**), Chintang has eight prefixes (**Schikowski2012_Morphology**) and Bantawa has six (**Doornenbal2009A-grammar**). In this respect, Yakkha resembles its northern neighbors Yamphu and

¹⁵ Functionally similar markers in other Kiranti languages have been analyzed as inverse markers by **Ebert1991Inverse**. In Yakkha, the distribution of this marker does not support such an analysis. According to this reasoning, inverse scenarios would be those with 3PL>2SG and 3PL>3, which would imply that 2DU and 2PL are lower-ranking arguments than 3SG. This is not confirmed by the alignment found in other constructions, where speech-act participants generally outrank third person participants in Yakkha.

Kulung (Rutgers1998Yamphu; Tolsma1999A-grammar) and many Western Kiranti languages (Jacques2012_Agreement).

Among the suffixes, the first person marking slot (Slot 2) is occupied by the marker *-nen*, coding all and only those scenarios where the first person acts on the second person (see (9)). A speaker from Hombong village consistently pronounced this marker as *-nan*, and also the Omruwa (Angbura) materials in Driem1994The-Yakkha and Gvozdanovic1987How show *-nan*, so that there may be some dialectal variation towards the western fringes of the Yakkha speaking area (the villages closer to the Arun river). This morpheme is unexpected from a comparative Kiranti perspective, since the cognate of this marker is generally *-na*, at least in Central and Eastern Kiranti. The most plausible explanation for the addition of /n/ is a preference for syllables being closed by nasals, as it is found elsewhere in the verbal inflection and in complex predication. This reasoning also explains why *-ci* and *-i* have the allomorphs *-cin* and *-in* in the 1>2 forms. Unfortunately, I have no explanation for why such a process is restricted to 1>2 scenarios, since open syllables are not completely ruled out in other inflectional forms.

- (9) a. *piʔ-nen=na*
 give[PST]-1>2=NMLZ.SG
 ‘I gave it to you.’
 b. *piʔ-nen-in=ha*
 give[PST]-PL=NMLZ.NSG
 ‘I gave it to you (plural).’ OR
 ‘We (dual) gave it to you (plural).’ OR
 ‘We (plural) gave it to you (singular/dual/plural).’

The functional distribution for scenarios of 1>2 is pan-Kiranti, although in some languages, *-na* can be found as a second person marker, for instance in Thulung (Lahaussais2002Thulung). The change from /a/ to /e/ seems to be a Yakkha innovation; it is also found in other Yakkha lexemes and affixes. Compare for instance the Belhare negation marker *man-* with Yakkha *men-*, or Belhare/Chintang *khatt* (‘carry off’) with Yakkha *khet*.

Slot 4 is reserved for a nasal copy (glossed as [COPY] in this section), coming after the past marker *-a* or the nonpast marker *-me?* in Slot 3 (discussed below). This nasal copy is licensed by the dual marker *-ci*; it only appears when *-ci* is there, too. In the affirmative paradigm this slot is only filled in the forms for 1DU.EXCL>3.P (see (10)). Although this marker never co-occurs with *-nen*, it is clear from its interaction with the tense marking that it does not occupy the same slot as *-nen*: the past marker *-a* occupies the same slot as *-nen*, and *-a* precedes the nasal copy.

- (10) a. *tund-a-η-c-u-η=na*
 understand-PST-[COPY]-DU-3.P-EXCL=NMLZ.SG
 ‘We (dual, excl.) understood him.’
 b. *tum-me-η-c-u-η=na*
 understand-NPST-[COPY]-DU-3.P-EXCL=NMLZ.SG
 ‘We (dual, excl.) understand him.’

Slot 5 is occupied either by *-i* ~ *-in* (coding 1/2PL.S and 2.P) or by *-ci* ~ *-cin* ~ *-c* (coding dual) in the indicative, and by a second person plural suffix *-ni* in the imperative (see §??). The suffix *-i* ~ *-in* will be examined first. Intransitive examples can be found in (11). The ambiguity of the marker is resolved by the addition of further morphological material: *-η(a)* for exclusive and *-ka* for second person. If no further material is added, the forms have an inclusive reading (see (11c)).

- (11) a. *khe-i-g=ha*
 go[PST]-2PL-2=NMLZ.NSG
 ‘You went.’
 b. *khe-i-η=ha*
 go[PST]-1PL-EXCL=NMLZ.NSG
 ‘We (excl) went.’
 c. *khe-i=ha*
 go[PST]-1PL=NMLZ.NSG
 ‘We (incl) went.’

In transitive verbs, the distribution of this marker is conditioned by the respective participant scenarios, i.e. by the referential properties of

both argument and co-argument. In scenarios with third person acting on second, the alignment is role-based; *-i* clearly marks second person plural patients. In scenarios with first person agents, though, the marker (its allomorph *-in*) appears as soon as one participant has plural number (cf. Table ?? and example ??). Thus, its alignment in 1>2 scenarios is reference-based (number-based, to be precise), since the marker occurs regardless of which participant has plural number.

The dual marker *-ci* ~ *-cin* also has a very peculiar distribution. It marks dual subjects of intransitive verbs, and in transitive verbs its distribution depends on the person of the patient. It does not occur with first person patients, as this category got neutralized to zero marking (evidence for the former presence of first person patient marking is presented below). In the 1>2 paradigm cells it behaves analogously to *-in*: as soon as one argument has dual number (and no argument has plural number), *-cin* occurs (see (12)).

In the 3>2 paradigm cells, *-ci* is aligned with the patient. In all cells with third person patients, it is aligned with the agent, since the dual distinction is not made for third person patients. To sum up, this marker indexes all intransitive dual arguments, second person dual patients and agents, and transitive dual agents of all persons when the patient is a third person. Thus, one arrives at a combination of accusative (third person), neutral (second person) and reference-based (number-based, in 1>2 scenarios) alignment for the dual marker. When *-ci* is followed by the suffix *-u*, its vowel is omitted, yielding the fused form [cu].

- (12) *chim-me?-nen-cin=ha*
 ask-NPST-1>2-DU=NMLZ.NSG
 ‘I will ask you (dual).’ OR
 ‘We (dual) will ask you (sing., dual).’

Historically, the two suffixes *-i* and *-ci* used to mark first person patients, too, but the forms for first person nonsingular patients got lost, probably due to a face-preserving strategy equating first person patients with vague/indefinite reference (cf. §??). Luckily, the old forms are preserved in Gvozdanovic1987How (re-arranged and provided with an alternative analysis in Driem1994The-Yakkha). Table ?? contrasts

the contemporary forms from the Tumok dialect with those recorded by Gvozdanović in 1984 with a male speaker of 51 years from Omruwa (Angbura) village. The orthography used in this source was slightly adjusted here; <ng> was replaced by <ŋ>. In the original sources, the data contain tense markers, which are omitted here for better comparison.

Table 8.12: Comparison of old and new first person patient forms

OMRUWA DATA (1984)					
A>P	1SG.P	1DU.EXCL.P	1PL.EXCL.P	1DU.INCL.P	1PL.INCL.P
2SG.A	-ŋgana	-gaha	-gaha	-	-
2DU.A	-ŋciŋaha	-ŋciŋaha	-gaha	-	-
2PL.A	-ŋiŋana	-gaha	-gaha	-	-
3SG.A	-ŋna	-ŋciŋaha	-ŋciŋaha	-ciha	-ha
3DU.A	-ŋna	-ciha	-ha	-ciha	-ha
3PL.A	N- -ŋna	-ciha	-ha	-ciha	-ha
TUMOK DATA (2012)					
A>P	1SG.P	1DU.EXCL.P	1PL.EXCL.P	1DU.INCL.P	1PL.INCL.P
2SG.A	-ŋgana	-gaha	-gaha	-	-
2DU.A	-gaha	-gaha	-gaha	-	-
2PL.A	-gaha	-gaha	-gaha	-	-
3SG.A	-ŋna	-ha	-ha	-ha	-ha
3DU.A	-ha	-ha	-ha	-ha	-ha
3PL.A	-ha	-ha	-ha	-ha	-ha

The 1984 data are puzzling, which can partly be ascribed to inconsistent orthography. In the forms with second person agents for instance, one would expect the second person marker *-ga*. This can probably be attributed to a writing inconsistency (writing <ng> instead of <ngg>) or a hearing mistake. The form *-ŋciŋaha* in 3SG acting on 1PL.EXCL is unexpected, too, and cannot be explained. The nasal prefix coding 3PL.A had a greater distribution than nowadays, since it is found in the paradigm cell for 3PL acting on 1SG, too. Even though the 1984 data are rather sketchy and apparently not completely reliable, they show that first

person patients were marked more elaborately on the verb once than they are now. The dual number marker *-ci*, for instance, is found in almost all cells with first person dual patients.

Slot 7 is filled by *-u*, marking third person patients. When it follows the dual marker, both suffixes fuse into [cu], due to a strategy to avoid vowel hiatus. The suffix *-u* does not only cause vowel elision, it may itself be deleted, e.g. in the underlying sequence */-wa-u-m/*, which is realized [wam] (see (13a)).

Slot 8 is filled by another nasal copy, which can be filled by *-ŋ* (see (13b)), *-m* (see (13c)) or *-n* (a negation marker).

- (13) a. *pi-wa-m=na*
give-NPST[3.P]-1PL.A=NMLZ.SG
'We (pl., incl.) give it to him.'
- b. *tund-a-ŋ-c-u-ŋ-ci-ŋ=ha*
understand-PST-[COPY]-DU-3.P-[COPY]-3NSG.P-EXCL=NMLZ.NSG
'We (dual, excl.) understood them.'
- c. *tund-u-m-ci-m=ha*
understand[PST]-3.P-[COPY]-3NSG.P-1PL.A=NMLZ.NSG
'We (pl., incl.) understood them.'

Slot 9 is filled by the marker *-ci* for third person nonsingular patients (see examples (13b) and (13c)). As mentioned above, third person patient marking does not distinguish dual and plural number. This marker is optional; it is omitted when the patient is low on the referential hierarchy, e.g. when it is inanimate (see (14a)) or when it has a rather vague reference (see (14b)).

- (14) a. *kho-het-u*, [...] *saikal=be*
steal-V2.CARRY.OFF-3.P[PST] [...] bicycle=LOC
thend-het-u, [...], *phopt-haks-u*
lift-V2.CARRY.OFF-3.P[PST] [...] spill-V2.SEND-3P[PST]
- 'He stole them (the pears) [...] he lifted them onto the bike,
[...] he spilled them [...]...' [23_pea_03.019-028]

- b. *yakpuca* *yog-a-ma-c-u*, *phusa*
 porcupine search-PST-PRF-DU.A-3.P, pangolin
yog-a-ma-c-u
 search-PST-PRF-DU.A-3.P
 ‘They (dual) looked for porcupines, they looked for pangolins.’ (context: They did not hunt any.)
 [22_nrr_05.015]

Slot 10 is filled by *-m*, coding first and second person plural agents acting on third person (also illustrated by (13a) and (13c)). Like the suffix *-nen*, it marks a whole scenario, not just the features of one participant. The suffix *-m* can be copied regressively, but maximally once, since the suffix combinations preceding *-m* never open up two copy slots.

The exclusive *-ŋ* ~ *-ŋa* in Slot 11 codes the non-inclusive, strictly speaking, because the first person singular is marked by this suffix, too. Although it is morphologically the marked form, it is the semantically unmarked form, defined by the exclusion of the addressee or some other person saliently present in the utterance context.¹⁶ The morpheme is glossed ‘1SG’ in singular and ‘EXCL’ in nonsingular forms (see (15)). The allomorph *-ŋa* is found in the first person singular subjunctive, e.g. *khe?ŋa* ‘I would go’, *apŋa* ‘I would come’. It is also found when the exclusive marker is followed by the negation marker *-n*. As for its distribution across the paradigm, it is found marking intransitive and transitive subjects. In the first person patient forms it got lost, except for scenarios with 1SG.P and an agent that has singular number (see also Table ??). As we have already seen, the exclusive suffix can be copied regressively (maximally twice). The inclusive/exclusive distinction present in the verbal inflection got lost in the personal pronouns, but it is maintained in the possessive pronouns and in the possessive inflection (see §??).

¹⁶ In other Kiranti languages, the inclusive forms are the functionally unmarked choice, since they are also used with generic reference. In Yakkha, first person forms are rarely used in this way; rather, the opposite development took place: a strategy to express generic reference (syntactically a detransitivation) became the standard way to indicate first person nonsingular patients, and the same is optionally possible with agents, too, see §??.

- (15) a. *chimd-wa-η=na*
ask-NPST-1SG=NMLZ.SG
'I will ask him.'
- b. *chim-me-η-c-u-η-ci-η=ha*
ask-NPST-[COPY]-DU-3.P-[COPY]-3NSG.P-EXCL=NMLZ.NSG
'We (dual, excl.) will ask them.'

The marker *-ka* ([ga] before vowels and [g(a)] before *=ha*) for second person fills Slot 12, illustrated by (16). It is unrestricted with regard to syntactic role, it appears in all paradigm cells with second person, except for 1>2, since there, the portmanteau suffix *-nen* applies. Example (16b) shows that it is not in the same slot as *-η(a)*.

- (16) a. *chim-me-c-u-ci-g=ha*
ask-NPST-DU-3.P-3NSG.P-2=NMLZ.NSG
'You (dual) will ask them.'
- b. *chim-me-η-ga=na*
ask-NPST-1SG-2.A=NMLZ.SG
'You will ask me.'

Slots number 13 and 14 are reserved for mood and negation suffixes. Finally, in slots 15 and 16 we find two clitics, but since they encode person as well, they are included in the discussion here. Both are optional morphologically, but certain discourse contexts require them (discussed in §?? for *=na* and *=ha*, and in §?? for *=ci*). The clitics *=na* and *=ha* originate in a nominalization of independent main clauses, but they also code number, partly ergatively (matching with the number of S and P), partly following reference-based alignment, with nonsingular outranking singular (see Table ?? on page ?? for their exact distribution).

The marker *=ci* is found occasionally on intransitive verbs with 3PL subjects. Its occurrence depends on the occurrence of *=ha*, and since this is a nominalized structure, *=ci* can be identified as the nominal nonsingular marker. It is optional, and only found when its co-nominal is salient in discourse or referentially high. The exact conditions have yet to be determined, though. The main, non-optional marker for 3PL subjects is the nasal prefix discussed in the beginning of this section. Example (17) contrasts forms with and without *=ci*.

- (17) a. *pheri sum-baŋ n-leks-a=ha=ci*
 again three-CLF.HUM 3PL-become-PST=NMLZ.NSG=NSG
 ‘They became three again.’ [19_pea_01.048]
- b. *limbu=ci nhaŋ*
 Limbu_person=NSG and_then
n-las-a-khy-a-ma
 3PL-return-PST-V2.GO-PST-PRF
 ‘The Limbus went back afterwards.’ (The story is not about
 the Limbus, they are referred to as a group, no particular
 individual is singled out.) [22_nrr_05.040]

In the person marking of Yakkha, both reference and role condition the distributions and functions of the markers. Speech act participant arguments are treated differently from third person arguments. For instance, several markers refer to the category speech-act participant as a whole, e.g. *-nen*, *-m* and *-i*. Number is another referential factor; as we have seen for *-i* and *-ci*, number is more salient than role in several scenarios. Role, in particular the patient role, is important as a condition for alignment splits. Reference-based systems and/or inverse marking are not unknown in Kiranti and other Tibeto-Burman languages (see e.g. Ebert1991Inverse for Belhare and Athpare, LaPolla2007Hierarchical for Rawang). Although reference is an important factor in Yakkha too, any attempt to generate one referential hierarchy from these intertwined conditions must fail, and none of the Yakkha person markers should be analyzed as an inverse marker. Figure ?? summarizes the alignment of the single markers. The single tables are organized like paradigms, with all possible participant scenarios. To take an example, the cell combined of 1A and 3P stands for scenarios where a first person agent acts on a third person patient. The shaded cells show which scenarios are marked by a particular marker. The last column (labelled S) stands for intransitive person marking. The crossed-out cells represent reflexive or partly reflexive scenarios, which cannot be expressed by the verbal person marking alone.

Two final notes are in order. Firstly, the third person singular (S and A arguments) marking is zero, in parallel to other Kiranti languages, and also in line with universal expectations (Siewierska2008_Person).