Ideophones in Khaling Rai

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In Khaling Rai, a number of lexemes have been found which can be considered ideophones, according to Dingemanse (2012:654)'s definition of the latter as 'marked words depictive of sensory imagery.'
This article will describe the different types of ideophones found in Khaling. These ideophones not only manifest a range of different morphological patterns, but cover the entire spectrum of sensory modalities found in Dingemanse's implicational hierarchy (2012:663), namely sound, movement, visual patterns, other sensory perceptions (such as texture and taste) and cognitive states.
The more than 400 ideophones collected to date in Khaling present a sound symbolic landscape which appears to be considerably richer than that found in other Kiranti languages with which the author is familiar. This factor is interesting to consider alongside the fact that Khaling is the only language, to our knowledge, which has an auditory demonstrative (see Jacques and Lahaussois 2014).

      ideophones, sound symbolism, Khaling Rai, Kiranti

1. INTRODUCTION

In Khaling Rai, a Tibeto-Burman language within the Kiranti subgroup spoken by some 10,000 speakers in Eastern Nepal, a number of lexemes have been found which can be considered to have an ideophonic component, according to Dingemanse (2012: 654)'s definition of ideophones as 'marked words depictive of sensory imagery.'

This presentation will describe the different types of ideophones found in Khaling. These lexemes, which can be grouped into three types according to morphological pattern, together cover the entire spectrum of sensory modalities found in Dingemanse's implicational hierarchy for ideophones (2012: 663), namely sound, movement, visual patterns, other sensory perceptions (such as texture and taste) and cognitive states.

The more than 400 ideophonic lexemes collected to date in Khaling present a very rich sound symbolic landscape. This factor is interesting to consider alongside the fact that Khaling is the only language, to our knowledge, which has an auditory demonstrative (Jacques and Lahaussois 2014)—another instance of a lexeme which picks up on sensory input.

While research on Eastern and Central Kiranti languages has resulted in documentation of evidence of ideophonic lexemes in languages such as Chintang (Rai et al 2005), Bantawa (Doornenbal 2009: 302-304), Yakkha (Schackow 2015: 181-182) (albeit sometimes with different labels, among which paralexemes, mimetics, ideophonic adverbs), the phenomenon has not been described for Western Kiranti languages. The fact that grammatical descriptions do not often take into account these lexemes—which push at the boundaries of the language through their many marginal characteristics—may lead a reader of grammars of Kiranti languages to believe that ideophones are not found in Western Kirant.

Nonetheless, in addition to the data presented herein for Khaling, Thulung also shows evidence of a large class of ideophonic lexemes, leading me to believe that words of this type are in fact found throughout the Kiranti language area[1]. Their omission from grammars is probably not an indication of their actual presence or absence in a given language but rather of the (sometimes implicit) adoption by linguists of grammaticographical models which do not include a "slot" for ideophonic lexemes, as well as the challenge that ideophones present "in all subdomains of language description" as far as grammar writing goes (Jacques 2013: 256).

The structure of the present paper is as follows: Section 2 will introduce the three types of ideophones which have been identified in Khaling, after describing the characteristics shared by all Khaling lexemes belonging to this word class and presenting the differences that lead to the establishment of three distinct types of ideophones. Sections 3, 4 and 5 will present in greater detail ideophones of types A, B and C respectively. Section 6 will discuss some general issues encountered in describing ideophones in the language, namely sound symbolism, reduplication as it occurs elsewhere in Khaling, and the relevance of the implicational hierarchy set up by Dingemanse (2012: 663) for investigating the ideophones of Khaling.

2. TYPES OF IDEOPHONES IN KHALING

Despite the commonalities found across ideophonic lexemes in many languages, among which the "special dramaturgic function that differs from all other word classes" (Voeltz & Kilian-Hatz 2001: 3), and the numerous formal parallels that can be found in the morphology and syntax of these lexemes (ibid), it is important to lay out language-specific criteria for what we consider to be ideophones in Khaling, in order to justify considering that they form a word class. The following features are those found to be distinctive for the ideophones of Khaling:

1) Phonotactics: compared to other words in the language, Khaling ideophones are recognizable by the fact that they have special phonotactic patterns.

2) Reduplication: all Khaling ideophones make use of reduplication, usually of a syllable (or bisyllable) but sometimes only of the vowel.

3) Adverbial nature: these lexemes are all adverbial in nature, occurring in the preverbal slot. They are not however considered to be adverbs as they cannot be negated.[2] They can be removed from the predicate without loss of grammaticality[3], although the resulting sentence will lack expressivity.

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[1] They also exist in Nepali, sometimes with very similar patterns to what is found in some Kiranti languages.

[2] Diffloth (among others) points out that although some linguists have considered ideophonic lexemes to be a subclass of adverbs, the similarities between the two word classes are "quite superficial" and that "expressives" (as sound symbolic lexemes are labeled in some Asian languages) are not negatable, whereas adverbs are. (Diffloth 1994: 108)

[3] Klamer (2001: 168) calls them "often syntactically redundant or optional (adjunct) constituents, in addition to not allowing negation.

4) Semantics: all Khaling ideophones convey information that is perceived sensorally, and do so in a way that approximates, to the extent possible, the characteristic they code for.

5) Pragmatic function: as in a great many languages, ideophones in Khaling are described as intensifying the action being described.

The features listed above make it possible to determine the boundaries of the word class of ideophones in Khaling. Within the class, three types of ideophones emerge, based on the extent to which the above features apply to the ideophones: while all ideophones have special phonotactics, there are three main patterns that emerge as far as the morphological patterns of the ideophones are concerned, with reduplication used in different ways. The three types are also tap into different sensorial domains. Additionally, there are different derivational possibilities according to ideophone type, as well as ability to combine with light verbs. The degree of reported dramaturgic function is also different across the three types. The features exhibited by Khaling ideophones which make it possible to group them into three distinct types are laid out in Table 1.

Ideophone type	Phonology/morphology	Semantics	Syntax
Pattern A	Sound-symbolic. Special intonational pattern. Reduplication of vowel.	Adds forcefulness and/or suddenness to motion. Always listed with verbs it co-occurs with.	Does not combine with light verbs (but some exceptions).
subpattern A1	$C_1\hat{V}_1(C_2) \sim C_1V_1tsV_1$ eg. *phô: ~ photso (nê:nɛ)*, '(cover) suddenly'		
subpattern A2	$C_1V_1C_2V_1$ eg. *phoso (sênnɛ)*, '(kill) suddenly'		
Pattern B	Sound-symbolic. Special intonational pattern. Trisyllabic, with reduplication of second syllable $C_1V_1.C_2V_1.C_2V_1$ eg. *gʌlʌlʌ (rênnɛ)*, '(laugh) with a low pitch'	Used to convey information about manner, qualifying the sound or motion of the action. Can be "defined" in isolation of verb but cannot occur without a verb.	Never combines with light verb.
Pattern C	Derivation with *-m/mîm* to nominal	Used for description of physical attributes	Combines with light verbs.
subpattern C1	Reduplicated monosyllable: $C_1V_1\text{-}C_1V_1$: if open eg. *βiβi:*, with an ugly grimace $C_1VC_2\text{-}C_1VC_2$ if closed eg. *tsʉntsʉn*, with bent knees (sitting position)		
subpattern C2	Reduplicated bisyllable: $C_1V_1(C_2).C_3V_2(C_4)\text{-}C_1V_1(C_2).C_3V_2(C_4)$ eg. *phesleŋ-phesleŋ*, very lightly		

Table 1. Ideophonic patterns and main characteristics

It is important to mention that Khaling ideophones and onomatopeia are considered to be quite distinct: Onomatopeia in Khaling are most often found in animal names[4], as can be seen from the list in Table 2.

kokkoro	partridge
ŋoŋŋo	eagle
tsitsige	small colorful bird
tsiptsirim	rose finch
tsektsere	small colorful bird
tuktukur	dove
pipiri	bulbul
pɔɔppɔɔp	owl
hutiplakplak	Himalayan owl
dɨdɨmɛ	termite
siksiger	grasshopper
huhutsa	owl

Table 2. Onomatopeic animal names

They exhibit reduplication but not particular patterns of reduplication across the category. While they have an ideophonic component in that they often approximate the sound made by the animal they are used to name, they are all nominal. Unlike some other languages, Khaling onomatopeia cannot be used in combination with an utterance or light verb to refer to the action of the animal calling. Instead, Khaling uses non-specific verbs (of crying, crowing, roaring, calling, etc) for this.

Onomatopeia are thus not considered to be ideophones in Khaling: they are reduplicated forms, but are not adverbial nor do they express sensory information (although they are clearly grammaticalized forms of words depicting sensory information).

3. TYPE A IDEOPHONES

Examples (1)-(4) illustrate type A ideophones. Two subtypes are found, labeled subtype A1 (exemplified in (1), (2), (4)) and subtype A2 (as in (3)).

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[4] A few other nominal onomatopeia have been found, all ending in -wɛ: tshɵtshɵwɛ, heat; dhudhuwɛ, obstacle; ɖʌkɖʌwɛ, heartbeat.

(1) tikîm   pʌteka   **tʌ̂ŋ**   bhuk-tɛ
    AUD.DEM firecracker IDEO explode-3SG.PST
    'That firecracker we heard exploded suddenly.'

(2) nê̂r-ʔɛ   ghrot-po   ʔu-sôm   **rṳ̂ː**   bhrêː-tɛ
    tiger-ERG goat-GEN   3POSS-breath   IDEO wear.out-3SG.PST
    'The tiger violently shut off the goat's airstream.'

(3) khlep-ʔɛ ʔûŋ   **phele** ʔi-lʌk-ʌtʌ
    dog-ERG   1SG   IDEO   INV-lick-3SG>1SG.PST
    'The dog licked me suddenly.'

(4) mɛ   bîː-ʔɛ   wo   **tsok** sṳ̂ŋ-khʌ-tɛ
    DEM   mythical.vulture-ERG   also IDEO pick.up-AUX-3SG>3.PST
    'A mythical vulture picked her up suddenly.'

3.1 Subtype A1

Subtype A1 is characterized by a monosyllabic pattern bearing falling tone. When these ideophones are open syllabes with a $C\hat{V}ː$ shape (as in (2)), they can have a variant form of the shape $CV_1.tsV_1$, with reduplication of the vowel. This is found in, for example, *pêː/petse khlêmnɛ*, 'to peel/sharpen quickly', and *phlôː/phlotso lɛinɛ*, 'to emerge suddenly.'

    Monosyllabic A1 ideophones can also be closed, with a pattern $C_1\hat{V}C_2$, in which case there is no variant form, and these ideophones thus show no sign of reduplication. Phonotactically, C_2 can be lateral (l, r), nasal (ŋ, m, n) or k. The medial vowel has a falling tone, except when the C_2 is k, as Khaling tone only occurs on syllables with long vowels or those closed by resonants (see Jacques et al 2012: 1098-1100). Some examples of closed syllable subtype A1 ideophones are *phûŋ tʌrnɛ*, 'to break off suddenly', *soɔ̂l moɔ̂mnɛ*, 'to spill or pour out suddenly', *plʌ̂m sʌ̂nnɛ*, 'to escape suddenly', *phʌ̂r koɔlnɛ*, 'to pursue suddenly', *pek toɔinɛ*, 'to catch in the air suddenly'.

3.2 Subtype A2

Subpattern A2 is characterized by the pattern $C_1V_1.C_2V_1$, with a reduplicated vowel. C_2 is predominantly lateral with this subpattern, but k, p, b, t are also found (as well as j and s, with a single example of each). The pattern, in (3) above, is also seen in the following ideophones (listed with their accompanying verbs): *tsiri tsêːnɛ*, 'to pinch suddenly', *tsɵkɵ kêmnɛ*, 'to climb suddenly (eg by jumping up)', *sepe dhêːnɛ*, 'to wipe off forcefully, thoroughly'.

3.3 Characteristics of type A ideophones

Semantically, type A ideophones convey the suddenness of the action or the forcefulness with which it is carried out. In terms of sensorial domains covered, they predominantly code for the quality of movement. The sensorial domain can also sometimes extend to sound, as often rapid or forceful movement is identified as such through the sound of the action. This is the case with the ideophone in (1).

Type A ideophones are found frequently in narratives, in which they intensify the narration, making it "more exciting", closer to "real action" (Dhan Bahadur Rai, p.c.), in other words contributing a dramaturgic function, one of the commonly described features of ideophones cross-linguistically (Voeltz & Kilian-Hatz 2001:3, Watson 2001: 387). They can be omitted from the verb without any loss of grammaticality, but their absence results in a less immediate sense of the action.

3.4 Derivation and combination with verbs

As far as morphosyntactic characteristics of these ideophones are concerned, there is no possible derivation with type A ideophones: they cannot be nominalized with the nominalizer *-m/-mîm*, nor can they undergo any other type of derivation.

Type A ideophones cannot combine with light verbs, except in marginal cases which will be described below. One of their particularities is that they combine with specific lexical verbs, and that their pairing with these verbs is not at all productive: they are associated with one or at most a small number of semantically related verbs, forming lexical pairs. There are some exceptions to the general rule associating a type A ideophone with a single lexical verb:

a) Labile verbs and derivationally-related pairs of verbs generally share ideophones:

tsê̂ krâːnɛ	forcefully stuff into (vt); be stuck suddenly (vi)
thʌ̂ŋ ruːnɛ	tremble/shake (vi) suddenly; shake out (vt) suddenly
lô̂ː/lotso phʌ̂nnɛ	pull off suddenly; come off suddenly
phlô̂ː/phlotso lɛinɛ/lênnɛ	emerge suddenly/take out suddenly
pak thoɔ̂mnɛ/thoɔ̂msinɛ	beat forcefully/bump into something forcefully
lʉ̂ː/lʉtsʉ woːnɛ/woɔinɛ	enter forcefully/bring inside forcefully

b) Homophonous verbs do not pattern predictably, being roughly evenly divided between those that take the same ideophone (i) and those that do not (ii):

(i) same ideophone for homophonous verbs:
wî̂ː sʌ̂nnɛ a) cover quickly, b) pull grain off stalks suddenly
piti khlênnɛ, a) burn suddenly; b) misstep suddenly and fall

dzele hô:nɛ, a) cry out suddenly; b) pull off suddenly

dhê:/dhɵtsɵ wênnɛ a) suddenly tangle (vi); b) go over ridge suddenly

thele tsʌnnɛ a) catch on spear, spike suddenly ; b) start an activity suddenly

(ii) different ideophones for homophonous verbs:

tsiri tsê:nɛ, pinch suddenly   vs. krâŋ tsê:nɛ, to close suddenly

bhrʉ̂: thu:nɛ, poke suddenly with a spear vs. soôn thu:nɛ, stretch out legs quickly

khʉ̂:/khʉtsʉ rʌmnɛ, cut quicly into pieces vs. mê:/mɛtsɛ rʌmnɛ, coil around quickly

solo moômnɛ   spill out suddenly, vs. tebe moômnɛ, suddenly find something out

c) Occasionally, verbs with similar or connected semantics will combine with the same ideophone:

soro hoômnɛ, slurp quickly; soro phʌmnɛ, drink up quickly

phô:/photso koômnɛ, cover suddenly; phô:/photso nê:nɛ, cover suddenly

phoso mʌnnɛ, die suddenly; phoso sênnɛ, kill suddenly

Although type A ideophones generally cannot occur with light verbs, there are a few rare cases where they combine with light verb mʉnɛ 'to do', as in *kʌjʌ mʉnɛ*, 'to uproot completely'.

Note that the ideophone *kʌjʌ* is also found in combination with *mêmnɛ*, 'uproot in circular motion', as well as *telnɛ*, uproot vertically, suggesting that the semantics of the action of uprooting (regardless of the directionality) could have spread to the ideophone, making it possible for it to combine with a light verb and still carry the meaning in the absence of a lexically full verb.

This is nonetheless not the case for pairs such as in c) above: even though *phô: koômnɛ* and *phô: nê:nɛ* have close semantics, their lexical verbs cannot be replaced by a light verb such as *mʉnɛ*, 'to do'. The issue of light verbs combining with type A ideophones requires further study.

4. TYPE B IDEOPHONES

Type B ideophones are characterized by being trisyllabic, with a reduplicated second syllable and the same vowel throughout.[5] Their structure can be represented as $C_1V_1.C_2V_1.C_2V_1$, with C_1 frequently a fricative/affricate (s, h, ts,

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[5] The term "triplication" is found in conjunction with a set of partially ideophonic adverbs in Chintang (Rai et al 2005), Bantawa (Rai and Winter 1997, Doornenbal 2009) and Yakkha (Schackow 2015), but while the Chintang and Bantawa versions are very different from what is found in Khaling, the Yakkha triplicated adverbs are formed exactly the same way as Khaling type B ideophones. Interestingly, despite the same morphological pattern, there is remarkably little overlap in the resulting ideophones: only *hururu* and *gururu* are found in both lists (Schackow 2015: 182).

tsh), and C$_2$ frequently a continuant (laterals l, r or approximant w) with stops k and t also occurring. Examples (5) and (6) illustrate two type B ideophones.

(5) tsɵttsɵ-hɛm **kilili** bhrɵs-tɛnu
child-PLU high.pitched call-3PL>3SG.PST
'The children called with a high-pitched sound.'

(6) **phʉrʉrʉ** mi dhʌm-nɛ
with.big.puffs fire blow-INF
'To blow on the fire with big puffs'

Table 3 presents a list of type B ideophones.

gururu	rumbling sound (landslide, thunder, stomach)
gʌlʌlʌ	low-pitched sound with echo
hiriri	falling downwards (like down a cliff, long distance) or thrown through air
hururu	sound of wind blowing, of flame whooshing
khititi	high-pitched laughing
khururu	sound of swift, soundless, efficient running
kilili	high-pitched (women, children)
phʉrʉrʉ	sound of blowing with big puffs, of wings flapping
pɵrɵrɵ	holding up, put in standing position or shape
sekeke	rustling sound (small animal in bush)
selele	way of unspooling thread, string
sititi	spread out (of animals, insects)
sololo	pouring continuously
sororo~soɔrʌrʌ	rustling sound
sututu	sliding motion
sʉlʉlʉ	way of sliding out
sʌwʌwʌ	rushing water sound, (male) laughter with no sound, wind blowing through trees
tilili	shining brightly (small light)
tshɛrɛrɛ	sound of waterfall on rock or overflow of water through pipe
tshororo	sizzling sound (always with heat)
tsororo	sucking sound
tsʉrʉrʉ	sound of very small stream of water
tʌlʌlʌ	shining but not so brightly (bigger lamp)

Table 3: Type B ideophones and their semantic characterization

4.1 Semantics

Pattern B ideophones are largely confined to the sensory domain of sound, but can occasionally be found to make reference to other senses such as visual (such

as *tilili* 'shining brightly' and *tʌlʌlʌ* 'shining not so brightly'), cognitive state (*ʔelele* 'nauseous'), taste (*hɛrɛrɛ*, 'lightly chili-flavored'). As with type A ideophones, type B ideophones have a dramaturgic function, intensifying the action they are associated with.

It is interesting to note that cross-linguistic sound symbolic patterns relate the consonants of type B ideophones with the sense of sound which they are associated with: continuants (typical of C_2) are often found in ideophones describing continuous sounds or acts, and fricatives (typical of C_1) are found in words which convey the sound of the motion through air (Hinton, Nichols, Ohala 1994: 9).

4.2 Derivation and combination with verbs

Type B ideophones cannot undergo derivation with the nominalizer *-m/-mîm* into a nominal or adjective. A different type of derivation is however possible: all type B ideophones can be rendered as $C_1V_1.C_2V_1$-*maksi*, with the same meaning and use as the trisyllabic variant. The ideophones in examples (5) and (6) can be replaced by *kilimaksi* and *phɨrɨmaksi* respectively.

In combining with verbs, type B ideophones must occur with full lexical verbs. Speakers are uncomfortable listing ideophones of this type without an accompanying verb[6], and claim that they have no meaning without their lexical verb. Despite this, type B ideophones have a wider range of combinations available to them than do type A ideophones: any verb that fits the semantics carried by the ideophone is acceptable.

Type B ideophones are sometimes given in combination with quotative verbs such as *ʔênnɛ*, 'say', *bhroônnɛ* 'call', *dzenɛ* 'speak', *rênnɛ* 'laugh', a fact which is unsurprising given their association with the sensorial domain of sound.

4.3 Relationship with type A ideophones

Sometimes there is a clear shared origin between type A and type B ideophones. In such cases, the lexical verb associated with type A is one of the possible verbs that combine with the related type B ideophone.

Some type A and B ideophones sharing a base are listed in Table 4:

Type B	gloss	Type A (+verb)	gloss

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[6] Note that even though Table 3 lists ideophones without their verbs, this is just a shorthand to get around listing all the verbs they co-occur with.

hiriri	falling downward	hiri tha:nɛ	drop suddenly from a height
selele	unspooling sound	sele phrô:nɛ	untie quickly, unfold quickly
phɨrɨrɨ	sound of blowing air	phɨrɨ dʌmnɛ	blow forcefully
sololo	pouring continuously	solo moômnɛ	pour out quickly
tsiriri	pinching feeling	tsiri tsê:nɛ	pinch forcefully
phelele	with big licks	phele lâ:nɛ	lick quickly, suddenly
bhɨrɨrɨ	sound of burning	bhɨrɨ hʌ̂nnɛ	burn completely, thoroughly

Table 4: Type A and B ideophones sharing the same base

In other cases, however, the base for the two types of ideophones looks similar, but the resulting ideophones are completely unrelated, as shown by the pairs in Table 5:

Type B	*gloss*	*Type A (+ verb)*	*gloss*
piriri	flowing forcefully	piri tsʌrnɛ	be badly wrinkled
sekeke	rustling sound	seke rinɛ	throw across ground suddenly
sororo	rustling sound	soro hoômnɛ	slurp quickly
sululu	sliding sound	sulu thʌ̂:nɛ	expel snot forcefully
tsororo	sucking sound	tsoro khrʌ̂mnɛ	crush completely

Table 5: Type A and B ideophones with homophonous (but unrelated) bases

The data in table 5 suggests that the sound symbolic elements that sometimes emerge in ideophones are not all that substantiated, insofar as it is possible to have homophonous bases for ideophones with very different interpretations.

5. TYPE C IDEOPHONES

Type C ideophones are illustrated in examples (7)-(11), which are further subdivided into two subtypes, subtype C1 and subtype C2.

(7) ʔi-ŋitso   **kroŋkroŋ**   mʉ-je
2POSS-ear pointy   do-2SG>3.IMP
'Point your ears! (listen carefully)'

(8) naŋlo   **khʌkhʌr**-mîm   gɵ
winnow   round-NMLZ   be.INAN
'The winnow is round.'

(9) ʔuŋʌ   **seseː**   sêlkɵ-nɛ   sɵ̂ː
1SG.ERG   cleanly   eat.up-1SG>2SG   EMPH
'I will eat you all up.'

(10) **ruburubu** poɔn-pɛ   gɵ
tightly   tie-PTCP   be.INAN
'It is tied tightly.'

(11) ʔʌm-po   ʔu-kʉr   **pheslenpheslen**   gɵ
3SG-GEN   3SG.POSS-load   very.lightly   be.INAN
'His load is very light.'

5.1 Subtype C1

Subtype C1 is characterized morphologically by having a reduplicated single syllable, which can be represented as C_1V_1-C_1V_1ː for open syllables (with lenghtening of the final vowel of the second syllable) or $C_1V_1C_2$-$C_1V_1C_2$ when the monosyllabic base is a closed syllable. Some phonotactic constraints apply to these patterns: C_2 is always nasal or lateral (the only exception is with a C_2 of t, in *khotkhot*, 'pointing upwards'), and when C_2 is lateral, the pattern is C_1V_1-$C_1V_1C_2$, with the C_2 deleted from the first syllable, as in *rʌrʌl* 'cylindrical' or *khʌkhʌr* 'round'. Examples (7)-(9) above are of C1 ideophones.

5.2 Subtype C2

Subtype C2 is characterized by a reduplicated bisyllabic base, made up of open or closed syllables. This results in the three following patterns, which are illustrated in examples (10) and (11) above:
$C_1V_1.C_2V_2$- $C_1V_1.C_2V_2$
$C_1V_1.C_2V_2C_3$- $C_1V_1.C_2V_2C_3$
$C_1V_1C_2.C_3V_2C_4$- $C_1V_1C_2.C_3V_2C_4$

The only constraint that was found on these patterns was that the final consonant in each base (in other words, C_2, C_3 and C_4, respectively, in the three patterns listed above) was most frequently lateral or nasal, with -k as the only other possibility.

5.3 Semantic characteristics

Type C ideophones cluster around sensorial domains associated with the description of physical characteristics: color, shape, position, texture and taste. Because a concrete lexical characterization is associated with each ideophone, the gloss associated is lexical. Table 6 lists some type C ideophones.

bhɛlbhɛl	horizontal
blɛblɛː	unclear, dim
seseː	clear, bright, clean
tshutsuː	spiky, sharp (of thorn)
dʌmdʌm	lukewarm, comfortable
ʔemʔem	nicely hot
dzudzur	sour
dzʌdzʌr	slightly sour
jajaː	foul-tasting (went bad in a copper pot)
lemlem	sweet
tshotshoː	rich (taste of protein: nuts, milk...)
dzimoŋdzimoŋ	overly weak in flavor
	confused sound of many people talking
kɛlɛŋkɛlɛŋ	together
kiliŋkiliŋ	high-pitched echo
khʌkhʌr	circular, round
klɯmklɯm	deep with rounded bottom or end
phepheː	flat
pʌpʌl	spherical
rʌrʌl	cylindrical
	long or high (length/height is main dimension of note, not round or flat; like a water bottle,
soŋsoŋ	not a bridge)
guŋguŋ	hunched (humans)
khɛŋkhɛŋ	tilted, angled
khotkhot	pointed upwards
koŋkoŋ	on side, in an unstable position
kuŋkuŋ	bent over (grains, plants)
tiŋtiŋ	in a row, lined up, as at a wedding
toŋtoŋ	upright (when sitting), not doing anything
tsɯntsɯn	with bent knees
tʌŋtʌŋ	in a row, lined up, as at a wedding
dhʌludhʌlu	pointed downward
khʌŋkhʌŋ	fresh, strong, healthy
khɯwɛkhɯwɛ	obedient, respectful of customs
tsʌŋtsʌŋ	ready to act, ready to listen
	relieved, refreshed (after shower, good sleep,
keŋkeŋ	getting rid of troubles)
	irritated (from a sound, like a cricket or
segesege	cicada)
simoksimok	sleepy
dzedzeː	smiling
ghrɛghrɛː	with many largish holes
glʌŋglʌŋ	dirty (of water)

khuŋkhuŋ	thick (of smoke only)
leŋleŋ	with oil floating on surface
ŋoŋoː	sad, about to cry
tshetshe:	with many smaller holds (strainer)
tshɛbɛtshɛbɛ	light and sharp (for a knife
tshutsu:	angry-looking
tsoŋtsoŋ	in a point after filling a container
wʌwʌr	puffed-up (eg animal when attacking)
βiβiː	in a bad mood
	twinkling, with gentle changes in intensity
dylpikdylpik	(light, fire)
khʉkhʉr	disappointed
lɛphilɛphi	flexible
rukuruku	very heavy

Table 6. Some type C ideophones

5.4 Derivation and combination with verbs

Type C ideophones, unlike other ideophone types, productively undergo derivation with the nominalizer *-m/-mîm*, resulting in nominals which can have an adjectival function.

Examples (12) and (13) show the same ideophone in underived and derived forms respectively.

(12) **dylpikdylpik**   mi   ghrɛ
    twinkling   fire burn
    'The fire burns in a twinkling manner.'

(13) **dylpikdylpik**-mîm   mi
    twinkling-NMLZ   fire
    'the twinkling fire'

Unlike other ideophone types in Khaling, type C ideophones can occur with light verbs, in addition to combining with lexical verbs associated with the sensory domain of the ideophone in question. When used with light verbs, the ideophones cannot be removed from the sentence, as they form an indispensable part of the predicate. Type C ideophones combining with the verb 'do' are seen in (14) and (15) and with the verb 'be' in (16).

(14) koklʌp   ki-ji-lo   ʔus-ruŋku   **wʌwʌr**
     rooster   fight-3DU-TEMP   3DU.POSS-neck.feather puffed.up
     mɛ-su
     do-3DU>3
     'When roosters fight, they puff up their neck feathers.'

(15) phʌl   thɛp-nu-lo   **tsoŋtsoŋ**   mɛ-nu
     flour   measure-3PL>3-TEMP forming.a.point   do-3PL>3
     'When measuring out flour, they fill it past the brim.'

(16) **jojoː**   mʌ-mu-pɛ   tsøttsə
     without.moving   NEG-be-PTCP   child
     'A child that never stays still'

5.5 Sources for type C ideophones

Whereas for type A and B ideophones, sound symbolism is invoked as a source for the base, for type C ideophones, a few different sources can be posited, as presented in Table 7.

ideophone	gloss	source lexeme	part of speech of source
lemlem	sweet	lemnɛ, to taste	verb
kuŋkuŋ	bent over (grains, plants)	kûnsinɛ, to bend	verb
rʌrʌl	cylindrical	rʌlnɛ, to roll	verb
dzudzur	sour	dzhʌrnɛ, to be sour (verb root |dzhʉr|)	verb
seseː	clear	sêːnɛ, to clean	verb
khoɔrkhoɔr	with a roasted taste and smell	khoɔrnɛ, roast, fry	verb
herehere	sharp	hernɛ, to be sharp	verb
ruburubu	tied tightly	ribʌ, rope	noun
rʌmrʌm	salty	rʌm, salt	noun
jojoː	patiently, calmly, still	jo, also, even	adverb

Table 7. Lexical sources for some type C ideophones

In this sense, type C ideophones resemble the reduplicated and triplicated adverbs found in Chintang and Bantawa: the adverbs found in those languages can have nominal, verbal or ideophonic sources for bases used as input for the same morphological patterns (Rai et al 2005, Rai and Winter 1997).

There is an additional difficulty with type C ideophones which is not found with other types: it is at times difficult to tease apart ideophones of this type from

adverbs which have been reduplicated.[7] But as I shall address in section 6.2, reduplication of an adverb results in a modified meaning from the unreduplicated version, and we do not find that sort of change in meaning in the ideophones of type C. Nonetheless, all lexemes for which there is a doubt—namely any adverb describing a physical characteristic and exhibiting reduplication, for which there is an equivalent non-reduplicated adverb in the language—have been removed from the present corpus. It must be noted, however, that this judgment is synchronic only: it is likely that at least some of the ideophones presented in this section originate from unreduplicated adverbs which are no longer used.

6. GENERAL ISSUES

6.1 Sound symbolism

Sound symbolism is evoked above in connection with the types and positions of consonants found within the templates of ideophones and their use to 'depict' the senses which the ideophones code. Vowels also contribute to the sound symbolic nature of ideophones, most obviously in the minimal and near minimal pairs[8] which sometimes occur with the same lexical verb but with slightly different semantics relating to size or pitch or intensity.

ideophone	translation	ideophone	translation	ideophone type
tilili ghrɛnɛ	shine brightly, in a focused manner	tʌlʌlʌ ghrɛnɛ	shine dimly or over a large area (of lamp)	B
dʑudʑur	sour	dʑʌdʑʌr	slightly sour	C
tsiri kɛ́nnɛ	bite (of small animal)	tsak kɛ́nnɛ	bite (of large animal)	A
kiliŋkiliŋ	high-pitched echo	gʌlʌŋgʌlʌŋ	lower-pitched echo	C
kilili rênnɛ	laugh with a high pitch	gʌlʌlʌ rênnɛ	laugh with a low pitch	B

Table 8. Vowel contrasts in pairs of ideophones

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[7] Matisoff describes an analogical phenomenon for Lahu: of the Lahu *gitaigo* (the term being borrowed from Japanese, lexemes of this type also being referred to by Matisoff as "attitudinals", as opposed to *giseigo*, or sound-imitative words), some are "non-reduplicated disyllables, but the disyllables as a whole may be reduplicated". (Matisoff 1994: 120). And the same is found in Japanese, where mimetics can occur as a base, conveying manner through iconicity, or as forms having undergone repetition or reduplication, in which case they take on additional Aktionsart semantics (Kita 1997: 399-400). The question of non-reduplicated yet potentially still ideophonic adverbs in Khaling requires further study.

[8] Only two pairs were found to contrast in their initial consonants: thoro vs soro hoômnɛ, slurp something thick and thin, respectively; phê: vs pê: lʌinɛ, suddenly stack something large vs small, respectively. Differences in initial consonants are frequently made use of to create different ideophones, but minimal pairs with a different in level, intensity, size in the semantics are clearly rare and most found with vowel differences.

In this respect, even though sound-symbolism appears to be in part culturally anchored[9], Khaling ideophones exhibit patterns of sound symbolic contrasts that are attested cross-linguistically (Hinton, Nichols, Ohala 1994: 4).

6.2 Reduplication in Khaling

Reduplication, which is treated herein as an identifying feature of ideophones, has distinct functions elsewhere in Khaling:

a) It signals that an action is carried out repeatedly or over a long period of time. This interpretation is found with verbs (17-18), adverbs (19) and even type A ideophones[10] (20-21).

(17) tsɵtstsɵ-ɦɛm **prôː-nu** **prôː-nu**-nʌ sôː-ʔɛ
child-PLU jump-3PL jump-3PL-SEQ hunger-INSTR
mʌt-nu.
make-3PL>3
'Children jump around a lot and get hungry.'

(18) tsɵttsɵ-ʔɛ leŋaksi dzɨ-tɛ dzɨ-tɛ-nʌ
child-ERG banana eat-3SG>3.PST eat-3SG>3.PST-SEQ
hoː-tɛ
come-3SG.PST
'The child ate many bananas and came over.'

(19) **wɛtɛ-wɛtɛ** lɛmthi-nɛ
slowly-RED walk-INF
'to walk slowly and regularly, steadily'

(20) dʌlʌ dzhɛl-ɦɛm **khraŋ-khraŋ** tseç-nuje
quickly window-PLU IDEO-RED close-2SG>3PL.IMP
'Close the many windows quickly!'

(21) ʔʌmʔ-ɛ **bhuŋ-bhuŋ** blɛt-tɛnu
3SG-ERG IDEO-RED tell-3SG>3PL.PST
'He revealed many secrets suddenly.'

b) It is the way to express universal quantification. This interpretation is found when the reduplicated element is a nominal, an adjective in -pɛ, or a nominalized type C ideophone. This is the only way to signal that the reference of a nominal is to all items fitting the description. The plural marker in Khaling (and in other

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[9] Diffloth (1994: 109) points out the cultural (as opposed to universal) nature of some types of sound-symbolism and their potential opacity for non-native speakers of a language.
[10] When reduplicated pattern C ideophones lose their tone.

Kiranti languages, and Nepali as well) does not indicate all nominals of a certain reference, but rather the noun in question and other similar nouns. In other words, the only way to refer to 'all the children' is through reduplication, as in (24); tsɵttsɵ-hɛm, on the other hand, refers to 'children and others'.

(22) gɔɔl-gɔɔl-pɛ ki sâː-nɛ mʌttʉ
  big-RED-PTCP potato select-INF OBL
  'One must select all the big(gest) potatoes.'

(23) bubûm-bubûm bubujem pɔɔt-tʉ-lo   bʌŋ
  white.NMLZ-RED shrub blossom-3SG>3-TEMP be.nice
  'When all the white(st) shrubs blossom it is nice.'

(24) tsɵttsɵ-tsɵttsɵ-ʔɛ leŋaksi dzʉ-tnu
  child-RED-ERG banana eat-3PL>3.PST
  'All the children ate bananas.'

(25) tsɵttsɵ-ʔɛ leŋaksi-leŋaksi dzʉ-tɛ-nʌ   hoː-tɛ
  child-ERG banana-RED eat-3SG>3.PST-SEQ come-3SG.PST
  'The child ate all (and only) bananas and then came.'

c) It lessens the intensity of the quality being described. This function is found with type C ideophones, as in (26), and is particularly used of color terms[11] to refer to a less intense version of the base ideophone.

(26) bubujem bubu-bubu jɔɔi
  shrub white-RED appear
  'The shrub looks off-white.'

This interpretation is rather unexpected in light of the other functions associated with reduplication, and can be contrasted with the function presented in b) above. While reduplication commonly signals notions such as "iteration, duration, and intensification" (Watson 2001: 399), this is not always the case, and in some languages (Vietnamese and Mon-Khmer languages) reduplication is used to lessen intensity (ibid), as in Khaling: *dzudzur-dzudzur* 'slightly sour' (vs *dzudzur* 'sour'), and *khʌkhʌr-khʌkhʌr*, 'less round' (vs *khʌkhʌr* 'round') are some other examples.

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[11] Some additional examples are: hʌlʌlam, red>hʌlʌŋhʌlʌŋ, light or dark red (as well as pink, orange, rust colored), gigim, green > gigigigimîm, light or dark green. Note that the reduplication only involves the base, and not the nominalized form. This is in opposition to (23) where reduplication of the nominalized form results in a superlative reading.

d) It is used to express the complement in the construction for expressing desires. This construction uses the impersonal form of the verb dâːnɛ ('want') in the template POSS[A]-root[CV]-RED dâː/daːtɛ (see (27)-(29)).[12] If the reduplicated verb has a CVC base, then its second iteration takes the full CVC, as opposed to the truncated CV of the first iteration.

(27) ʔuŋ   ʔʌ-**dzɵ-dzɵ**   dâː
    1SG   1SG.POSS-eat-eat   want
    'I want to eat/I feel like eating.'

(28) ʔʌ-dʌrʌm   ʔuŋ   ʔu-**dʌ-dʌm**   dâː
    1SG.POSS-friend   1SG   3SG.POSS-meet-meet   want
    'My friend wants to see/meet up with me.'

(29) ʔʌm   ʔu-**khʌr-si-si**/ʔu-**khʌ-khʌr-si**   dâː
    3SG   3SG.POSS-turn-REFL-RED   want/3SG.POSS-turn-turn-REFL   want
    'He wants to spin.'

6.3 Relationship with auditory demonstrative

Khaling has what has been called an auditory demonstrative (Jacques and Lahaussois 2014), which signals that the primary channel of sensory perception is auditory rather than visual. It is, as far as we are able to ascertain, typologically unique.

(30) mâŋ   lêl   tikî-m
    what   song   AUD.DEM-NMLZ
    'What song is that?' (asked by a speaker of a person listening to a song on her cell phone)

There is nothing to suggest any sound symbolic source for this demonstrative; indeed it seems likely that it is a contraction of *tɛ ŋi-kî-m* DEM hear-1PI>3-NMLZ, 'that which we hear'. Nonetheless, it is interesting Khaling has a number of different lexemes that take into account the type of sensory input: the auditory demonstrative is one type of such lexemes in the language, and the ideophones are another, signaling, according to the ideophone in question, that the main

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[12] The template for the construction is that the complement verb has a CV(C) root which is reduplicated and possessive-marked for the agent role followed by an impersonal (3rd person) form of the verb 'want'. Note that with reflexively-marked verbs, the complement verb can either reduplicate the root followed by a single reflexive marker, or use a single syllable of the verb followed by a reduplicated reflexive marker (see (20)).

sensory channel for perception is sound, taste, texture, color, shape, position, manner of motion, etc.

The two, despite obvious differences (in phonology, morphology, syntax), tap into the same cognitive processes.

6.4 typological issues

Dingemanse (2012: 663) has proposed the implicational hierarchy for ideophones:

(31) sound < movement < visual patterns < other sensory perceptions < inner feelings and cognitive states

According to the hierarchy in (31), a language with ideophones somewhere along the scale will also have ideophones coding everything to the left of that particular sensory mode. Thus a language with ideophones for visual patterns will necessarily also have ideophones for sound and movement.

The usefulness of this hierarchy is apparent for a language like Khaling, where ideophones display distinct morphological patterns according to the sensory traits they code for. Because the morphology for the three ideophone types is different, the words conforming to these patterns might not have been conceived of as belonging to the same word class, but this hierarchy makes it possible to see how the three patterns of Khaling all form part of a continuum, highlighting different parts of it. The position of the three different types of Khaling ideophones on the hierarchy can be represented in (32):

```
         |-   -   - --type A--|
         |--type B------- -   -   -   -   -   -   -   -   -   -   -   -   -   -|
    `           |----type C---------------------------------------------------------------|
```
(32) sound   < movement   < visual patterns < other sensory perceptions < inner feelings and cognitive states

Khaling ideophones can be seen to cover the entire range of senses making up the implicational hierarchy: Type A covers movement and is occasionally extended to sound, expressing that an action is carried out with suddenness or forcefulness. Type B primarily covers sound with an extension to movement, providing details about the manner of the sound and/or movement, but also extends to a few other domains (*hɛrɛrɛ*, 'mildly chili-flavored'; *tʌlʌlʌ*, 'dim (of light)'; *tilili*, 'bright (of light)'; *ʔelele*, 'nauseous'). Type C covers physical characteristics: visual patterns such as color, shape, position are amply represented, and other sensory domains such as taste, texture, temperature, as well as some inner feelings[13] and cognitive states are also covered by this pattern.

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[13] It is sometimes difficult to distinguish between an inner state and physical appearance, as the latter can be the outer manifestation of that inner state, see for example *tshutsuː*, angry, spiky.

The hierarchy helps to elucidate the ideophonic landscape of Khaling: it not only makes it possible to identify as members of a single lexical category elements that might otherwise have been treated as too different to be considered together, given their very different shapes. In doing so, a more complete picture emerges of the expressive potential of the language in covering the different senses of perception; it also reveals that the ideophones to the right of the hierarchy are less prototypical: type C ideophones can undergo nominalizing derivation and can combine freely with light verbs, while the other types cannot.

8. CONCLUSION

Khaling has been found to have a large inventory of ideophones. These ideophones are categorized into three different types, based on a number of criteria, and the division into three types correlates with the different senses which are depicted by the ideophones. The senses in question cover the full range of Dingemanse's 2012 implication hierarchy, with the three types overlapping in part but generally having their own range within the hierarchy.

It would be very interesting to see the emergence of studies of ideophonic lexemes in other Western Kiranti languages, where they apparently also occur even though they are currently undescribed, and to map out the patterns and functions of this word class throughout the Kiranti-speaking area.

ABBREVIATIONS

>	'acting on'	NMLZ	nominalizer
AUD.DEM	auditory demonstrative	OBL	obligatory
AUX	auxiliary	PL	plural (agreement)
DEM	demonstrative	PLU	plural
DU	dual	POSS	possessive
EMPH	emphasis	PST	past
ERG	ergative	PTCP	participle
GEN	genitive	RED	reduplication
IDEO	ideophone	REFL	reflexive
IMP	imperative	SEQ	sequential
INAN	inanimate	SG	singular
INF	infinitive	TEMP	temporal
NEG	negative		

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