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# Body part terms in Kammu

## A descriptive and comparative study

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## Abstract

This paper presents a survey of the body part domain in the Mon-Khmer language Kammu. The descriptive part of the paper consists of word lists with belonging discussions and illustrations. The two major systems of relations between body part terms are the hierarchical possessive system and the spatial system. These findings support the notion that we categorize our body in different coexisting systems.

Kammu adheres to most of the posited body part universals, with the notable exception that in some contexts one can refer to the foot with greater detail than to the hand.

The last part of the paper compares Kammu with the distantly related language Jahai and the unrelated Tai-Kadai language Lao. Lao has had a lot of influence over Kammu, and this has affected the body part categorization.

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## Abbreviations used in glosses

|      |                              |
|------|------------------------------|
| 1SG  | 1st person singular          |
| 3SG  | 2nd person singular          |
| NEG  | negation                     |
| REFL | reflexive possessive pronoun |

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# 1 Introduction

## 1.1 Background

In terms of how we humans perceive our surrounding world and communicate about it, the human body is unique. We perceive other human bodies mainly through sight and feeling, but every human has also got a body of his own, and it is perceived in a radically different way.

Humans use their bodies every day for vitally important tasks. Therefore every human culture and language needs to be able to talk about the body and, essential to this paper, categorize it.

If we make the assumption that all humans have the same perceptual capabilities and essentially the same bodies, cross-linguistic differences in the categorization of the body would suggest a cultural influence on how we conceptualize and describe our surrounding world.

### 1.1.1 Anatomical partonomy

For the categorization of the human body and its parts (the ‘body part terms’ within the ‘body part domain’), a concept called *partonomy* has been particularly popular. Partonomy is a hierarchical classification based on a *part of*-relation (also called *meronomy*), i.e. that ‘a finger is *part of* a hand’ (Brown et al 1976).

One difference between a partonomical and a taxonomical classification (based on a *kind of*-relation: ‘a hammer is a kind of tool’ etc.) is the so called *transitivity* between different levels of the hierarchy. A taxonomy is fully transitive: a ball-peen hammer is a kind of hammer, a hammer is a kind of tool, a tool is a physical object etc. Irrespective of how many levels there are in such a hierarchy, it is always possible to say that objects on the lowest level is ‘a kind of’ object on the highest level, in this case ‘a ball-peen hammer is a kind of physical object’.

The partonomy of body parts seems to be only partly transitive. For example, “teeth are parts of mouths, mouths are parts of faces, but teeth are not parts of faces” (McClure 1975 in Enfield et al 2006:143).

### 1.1.2 Simplex and complex terms

Like most other surveys of the body part domain, this one makes a distinction between a *simplex term* and a *complex term*. The name simplex term denotes a body part term that consists of one synchronically unanalyzable morpheme (e.g. English *arm*, *eye*, *foot*, *tongue*). The complex term is usually a compound

consisting of several morphemes, dividable into a *head* and a *modifier* (e.g. English *armpit*, *wing of the nose*, *ear lobe*, *knee cap*, *toenail*). The head of a complex term describes the body part's appearance, function or similarity to something else, and the modifier expresses something about the location of the body part, e.g. Finnish *sormenpää* 'fingertip' lit. 'head (*pää*) of the finger (*sormi*)'. See Andersen 1978:355 for more examples.

This distinction is considered especially important in the survey of a partonomical system since the modifier of a complex term supposedly bears some hierarchical information. A *knee cap* is therefore a 'cap related to the knee', and from a partonomical point of view this means that the knee cap is *part of* the knee (Brown et al 1976:74).

The division into simplex and complex terms might not always be as simple as for the examples above (e.g. *nostril* is synchronically simplex, but diachronically complex as a compound of *nosu* 'nose' and *pyrel* 'hole'), but the mentioned definitions are sufficient for Kammu (see 1.2.1).

### 1.1.3 Partonomical surveys and universals

The largest survey in this domain is Cecil H. Brown's *General principles of human anatomical partonomy and speculations on the growth of partonomic nomenclature* from 1976. Brown examined the anatomical partonomy in 41 languages from different language families from all over the world and posited 'principles' about their arrangement and naming strategies (Brown 1976).

In 1978, Elaine Andersen published *Lexical universals of body-part terminology* in Joseph Greenberg's four tome *Universals of Human Language*. Andersen's study draws much of its data from Brown, but also from other studies on particular languages or language families. (Andersen 1978:346)

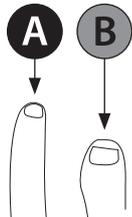
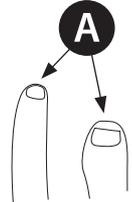
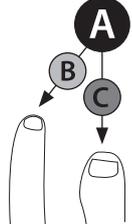
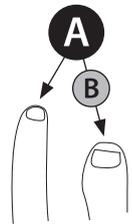
Andersen posits nine main "universals of categorization for the domain of human body-parts" (Andersen 1978:351ff), and she mentions that most of them are based on the eleven 'principles' posited by Brown (Brown 1976:404ff).

These universals are here presented verbatim, except for a few wordy explanations and examples that were left out or reworded.

The use of SMALL CAPS in this list is indicating a *parton* (pl. *parta*), i.e. a part of the body "that may or may not be labeled in any given language" (Brown 1976:401), meaning that the *parta* mentioned below may not always correspond precisely to the English terms bearing the same name.

- a) The BODY is labeled in all body-part partonomies.
- b) Every language includes a term for HEAD in its lexical field of body-parts, and the term is always immediately possessed by BODY. Other categories which usually occur at the second level of the partonomy include TRUNK, ARM (plus HAND) and LEG (plus FOOT).
- c) All languages label EYES, NOSE and MOUTH.
- d) The upper limb, ARM (plus HAND), is named by a distinct term in all languages.
- e) The categories FINGER and TOE are always labeled (by one of four general patterns):

Table 1: Labelling patterns for FINGER and TOE

| Pattern   | Graphic version   | Examples (Language, 'finger' and 'toe')   |
|---|---|---|
| 1. Different basic terms for each category                          |   | Swedish <i>finger</i> and <i>tå</i> .<br>Finnish <i>sormi</i> and <i>varvas</i> .<br>French <i>doigt</i> and <i>orteil</i> .  |
| 2. One polysemous basic term  |  | To emphasize either meaning, one can usually add either 'hand' or 'foot' to the polysemous term.<br><br>Czech <i>prst</i> ( <i>prst na ruce</i> , <i>prst na noze</i> ).<br>Spanish <i>dedo</i> ( <i>dedo del mano</i> , <i>dedo del pie</i> ).<br>Hebrew <i>etzba</i> ( <i>etzba yad</i> , <i>etzba regel</i> ).         |
| 3. Different terms derived from the same root                       |  | <i>B</i> is usually the term for 'hand' or 'arm',<br><i>C</i> is usually the term for 'foot' or 'leg'.<br><br>Mayan <i>aal k'ab</i> and <i>aal ook</i> .<br>Mandarin <i>shǒu zhǐ</i> and <i>jiǎo zhǐ</i> .<br>Korean <i>son-garak</i> and <i>bal-garak</i> .<br>Tagalog <i>daliri sa kamay</i> and <i>daliri sa paa</i> . |
| 4. One basic unanalyzable term for FINGER, with TOE derived from it |  | <i>B</i> is usually the term for 'foot' or 'leg'.<br><br>Hausa <i>yātsà</i> and <i>yātsà kafà</i> .<br>Malay <i>jari</i> and <i>jari kaki</i> .<br>Hungarian <i>ujj</i> and <i>lábujj</i> .<br>Yoruba <i>ika</i> and <i>ika ẹ̀sẹ̀</i> .<br>Tamil <i>viral</i> and <i>kālviral</i> .                                       |

- f) All languages name (FINGER)NAIL and (TOE)NAIL by one of two patterns. Languages with the first pattern have one basic term applied

to both categories, and the second pattern have different terms derived from a common root, like English ‘fingernail’ and ‘toenail’.

- g) A term for LEG implies a separate term for ARM.
- h) A term for FOOT implies a separate, non-identical term for HAND.
- i) Terms for INDIVIDUAL TOES imply terms for INDIVIDUAL FINGERS.

Finally, earlier studies in the categorization of other domains have found that folk taxonomies and “[b]ody-part partonomies rarely exceed five hierarchical levels and never exceed six” (Andersen 1978:348, Brown 1976:401). This is often referred to as the ‘depth principle’.

#### 1.1.4 Criticism

The main criticism against Brown and Andersen and their conclusions has concerned the focus on the partonomical relationship.

In 1985, Palmer and Nicodemus published an article with the telling name *Coeur d’Alene Exceptions to Proposed Universals of Anatomical Nomenclature*. In the introduction they state that

[L]inguistic anthropologists [...] have mistakenly assumed that the *part-whole relation* is universally the primary semantic dimension of anatomical domains, [...] The purpose of this paper is to demonstrate that at least one other relation, that of *spatial orientation*, must be considered before cross-cultural or cross-linguistic comparisons can yield valid universals of folk anatomy.

(Palmer and Nicodemus 1985:341ff, my emphases).

Their paper exemplifies this spatial relationship with a survey of the body part domain in the Salishan language Coeur d’Alene (Snčícú?umšcn), spoken in the northwestern USA. Its inventory of body part terms contains for example *s-cin-čém-cən* lit. ‘the surface below the mouth’ for English ‘neck’, and *s-číʔ-qáń-šən* lit. ‘forward part of the top of the leg’ for ‘knee’.

Such terms “cannot easily be arranged in a taxonomic hierarchy, even one based upon part-whole relations” and consequently “[c]ross-linguistic comparisons which presume the universality of part-whole hierarchies must fail”. The authors’ conclusive opinion is that

the part-whole model is inappropriate to folk anatomical domains based on nontransitive spatial relations [...] Linguistic anthropology needs not one model of folk classification, but several (ibid.:353f).

Similar ideas were expressed in a 2006 special issue of the journal *Language Sciences* (hereafter abbreviated *LS*), dedicated entirely to descriptions and analyses of the body part domain in languages from all over the world (Majid et al. 2006).

All of the researchers found it difficult to analyze the entirety of their findings as a partonomical system. Many of the investigated languages simply have no word corresponding to English ‘body part’ or even ‘part’. This forces the researcher to use possessive constructions like ‘X has Y’ or locative constructions like ‘X is located on/at/near/etc. Y’ – none of which actually contain any partonomical information (Meira 2006:275, Levinson 2006:233ff, Wegener 2006:357f, Terrill 2006:320, Gaby 2006:218, Burenhult 2006:178f). In other languages, e.g. Punjabi, different body part terms can have different relations to each other: partonomical ‘the leg is part of the body’, possessive ‘the finger has a nail’ or locative ‘the nose is on the face’ (Majid 2006:255ff).

Enfield found a similar system in Lao and ends his article with a conclusion that could summarize the entire issue:

The semantic relations which pertain between terms for different parts of the body not only include part/whole relations, but also relations of location, connectedness, and general association. Calling the whole system a ‘partonomy’ attributes greater centrality to the part/whole relation than is warranted. (Enfield 2006b:199)

This notion of different yet coexisting relational systems offers an explanation to why the body part partonomy is not always fully transitive: there simply is no continuous path of part-of relations in the partonomical hierarchy between the nail and the body, for instance. The arm might be a *part of* the body, and even the finger a *part of* the hand, but as long as the nail is *on* the finger and the hand is *connected to* the arm, it is impossible to say that the nail is *part of* the body.

## 1.2 Kammu

Kammu (also known as Khmu) is a Khmuic language on the Mon-Khmer branch of the Austro-Asiatic language family. The language has about 500,000 speakers, mainly in Laos but also in Thailand, Vietnam, China and Burma.

Kammu is a highly isolating language with no inflectional morphology. There is however an abundance of derivational affixes, e.g. an instrumental infix in *prnə* ‘broom’, from *pó* ‘to sweep’. Kammu is head-initial and the basic

word order is SVO. English adjectives correspond to stative verbs: *sáŋ háan* ‘dead pig’ or ‘the pig died’.

My informant speaks the Yùan dialect which distinguishes high and low tone. These are marked on vowels with ´ and ` respectively. Long vowels are written double. The rest of the alphabet is identical to the IPA, except for <ñ> representing [ɲ] and <y> representing [j]. <ʔw> and <ʔy> are laryngealized approximants (Svantesson 1983).

Kammu has been in contact with the neighbouring but genetically unrelated Tai-Kadai language Lao for several centuries, borrowing thousands of words and expressions. Many of these words have become parts of the everyday language, while others are only used in more restricted contexts such as prayers and sayings.

Over the last 30 years many of the Kammu populations have been relocated to cities in Laos and to ethnically mixed villages. My informant came to Sweden before this, so he speaks a language that retains words that are no longer used, reflecting the Kammu spoken during his upbringing in the 1940’s.

### 1.2.1 Simplex and complex terms in Kammu

There are two types of simplex terms in Kammu. *màt* ‘eye’ is a basic underived noun, the most common kind of simplex term in the body part vocabulary. *sŕŋèèk* ‘area above wrist or ankle’ is a derived noun, in this case derived through affixation from the verb *ŋèèk* ‘to be thin in the middle’.

These two types both differ from complex terms like *khúul màt* ‘eyelash’, a compound with the head *khúul* ‘(body) hair’ and the modifier *màt* ‘eye’.

## 1.3 Aims

This paper has three aims:

- 1) To survey the inventory of body part terms in Kammu.
- 2) To analyze the relations between body parts terms and attempt to categorize them in one or more systems. These results will also be compared with the universals posited by Andersen and Brown.
- 3) To make a qualitative comparison of Kammu and two of the languages surveyed in *LS*, namely the distantly related Mon-Khmer language Jahai and the unrelated language Lao, which has had a lot of influence on Kammu.

## 2 Method

The data for this paper was gathered during several elicitation sessions with a native speaker of Kammu at the department of linguistics at Lund University, Sweden. I used many of the methods explained in the *LS* articles *Elicitation guide on parts of the body* (Enfield 2006a) and *Body colouring task* (van Staden & Majid 2006). Some of the methods were developed for situations with multiple informants, but their general design was still applicable for me.

The *Kammu Yùan-English Dictionary* (Svantesson et al, forthcoming) served as a secondary source. I used it to compare translations and to look for unusual terms. I noted these and asked about them during the next session.

Once the collected inventory of body part terms had reached a substantial size, I began constructing sentences that could reveal how the different terms relate to each other. Seeing that all the surveys in *LS* support the notion of coexisting categorizational systems, it was necessary to also investigate the *possessive categorization* and the *spatial categorization* of body part terms.

### 2.1 Partonomical categorization

Early during the elicitation phase it became clear that Kammu has no word for ‘part’, precluding questions like ‘Is X part of Y?’. *Elicitation guide on parts of the body* attends to this rather common situation and suggests that the researcher find “[l]anguage-specific expressions relating various body parts to each other”, like “An arm must have a hand” (Enfield 2006a:156). But again, such phrases do not necessarily convey any partonomical information.

In his article about Lao, Enfield mentions the *entailment test*. The basic method is to attribute mutually exclusive properties to two different body part terms, e.g. as a statement ‘This man has a mosquito bite on his X, but not on his Y’ or as a question ‘Can my X be unscathed if my Y is bleeding?’. Enfield means that this method can provide evidence that one term is *part of* another term or not (Enfield 2006b:197). Two typical ‘frames’ for this test in Kammu were:

- (1) ò àh òh tàa X tèε tàa Y ò páə àh  
1SG have wound at X but at Y 1SG NEG have  
‘I have a wound on my X but not on my Y’
- (2) múuc pók X kàə tèε páə pók Y kàə  
ant bite X 3SG but NEG bite Y 3SG  
‘An ant bit his X but not his Y’

## 2.2 Possessive categorization

The original frame for statements about the possessive categorization was:

- (3)  $X$  ( $\delta$ )  $\grave{a}h$   $Y$   
X (1SG) has Y  
'(my) X has Y'

This frame was not always adequate, since some terms can only be possessed if they occur in pairs (see 3.2.2 for further detail). The subscript WP in the following frame indicates that the two terms must belong together in a word pair.

- (4)  $X$  ( $\delta$ )  $\grave{a}h$   $Y_{WP}$   $\grave{a}h$   $Z_{WP}$   
X (1SG) has  $Y_{WP}$  has  $Z_{WP}$   
'(my) X has  $Y_{WP}$  and (has)  $Z_{WP}$ '

## 2.3 Spatial categorization

There was never any established sentence frame for investing the spatial categorization. Once my informant understood what I was looking for, I would just mention a body part term and he came up with acceptable sentences which described its relations to other terms. Their structure was usually:

- (5)  $X$   $y\grave{e}t$  ( $t\grave{a}a$ ) *PREPOSITION*  $Y$   
X located (at) *PREPOSITION*  $Y$   
'X is located (at) *PREPOSITION*  $Y$ '

See 3.2.3 for an overview of the prepositions included in the analysis.

## 2.4 Comparison with Jahai and Lao

The comparison with Jahai and Lao was based on the articles in *LS* about these languages (Burenhult 2006, Enfield 2006b) where I simply looked for details and discussions and related these to Kammu. I also wrote to Niclas Burenhult with some questions about Jahai, and he kindly answered these.

## 3 Results

### 3.1 Inventory of body part terms

The inventory of body part terms is divided into categories and presented in tables, then discussed and exemplified. These tables consist of three columns showing 1) the Kammu term, 2) an English translation and 3) possible comments on any particular term and always a gloss for complex terms. Some of the tables are accompanied by drawings showing the scope of different body part terms, based on the results from the body part coloring task.

Throughout this paper the physical extension of a body part term will be called its *scope*, and the corresponding verb is *to cover*.

It is important to notice that in these tables the glosses for complex terms are translated lexically but not syntactically. E.g. ‘nostril’ in Kammu is *hntú mùh*, glossed here as ‘hole nose’, while the translation with English word order would be ‘nose hole’. However, in the running text all glosses are translated both lexically *and* syntactically.

The complex terms all consist of isolated morphemes, but some of them are nevertheless unanalyzable (‘cranberry morphemes’). Such morphemes are simply glossed with the Kammu word. If some part of a complex term is translated into English as several words, these will have periods between them, e.g. *plé plóŋ* ‘fruit lower.leg’.

#### 3.1.1 Major areas and parts of the body

Kammu has a number of encompassing complex terms for areas of the body, similar to English ‘upper/lower body’. These are created with *làŋ* ‘side, direction’ (from Lao *luan*) and they occur in contrastive pairs (upper ↔ lower, left ↔ right etc.).

Table 2: Encompassing terms for areas of the body

| Kammu                 | English             | Details ( <i>làŋ</i> plus ...) |
|-----------------------|---------------------|--------------------------------|
| <i>làŋ tí / kmpóŋ</i> | upper body          | arm / head                     |
| <i>làŋ cìŋ / t̀</i>   | lower body          | leg / bottom                   |
| <i>làŋ knáŋ</i>       | front side          | front                          |
| <i>làŋ kntr̀̀ŋ</i>    | back side           | back                           |
| <i>làŋ káal</i>       | in front of, before | in front of                    |
| <i>làŋ knní</i>       | behind, after       | behind                         |
| <i>làŋ wè</i>         | left side           | left                           |

|                   |                     |                           |
|-------------------|---------------------|---------------------------|
| <i>liàn hám</i>   | right side          | right                     |
| <i>liàn nòk</i>   | outer (of arm, leg) | outside (Lao <i>nòk</i> ) |
| <i>liàn klúan</i> | inner (of arm, leg) | inside                    |
| <i>liàn tríak</i> | one side            | side                      |

The pair *liàn kmpóŋ* ↔ *liàn cìan* corresponds to English upper body ↔ lower body, and the two meet at the waist, *kùan*. As a more easily translatable example, the Kammu say that a bed has *liàn kmpóŋ* ‘head-end’ and *liàn cìan* ‘foot-end’ (see 3.1.5 for a discussion about *cìan*).

Another indication of which body parts the Kammu consider most significant is the belief in twelve ‘body souls’ (*hrmàal*) living in every human being. The torso, head, nose and mouth house one such soul each. The pairs of ears, eyes, arms and legs house two souls each (Lundström & Svantesson 2006:144ff). A person is healthy as long as these souls are present, but they will leave the body if they become scared or are mistreated. Their absence can result in anything from stumbling and headache to blindness, illness and death. In order to retrieve a lost soul a shaman and the family of the suffering person perform elaborate rituals spanning over several days (Tayanin et al. 2006:37ff).

Several times, my informant also suggested a division of the body into three ‘important parts’: *kmpóŋ* ‘head’, *lòh* ‘torso (and arms)’ and *cìan* ‘leg(s)’.

### 3.1.2 The head and the neck

Table 3: The head and the neck

| Kammu                         | English           | Details                                     |
|-------------------------------|-------------------|---|
| Simplex terms                 |                   |   |
| <i>kmpóŋ</i>                  | head              |   |
| <i>kntíar</i> ~ <i>kntúar</i> | neck              |   |
| <i>tk’lòk</i>                 | nape of the neck  |   |
| <i>rmph</i>                   | face              |   |
| <i>ktáh</i>                   | forehead          |   |
| <i>káap</i>                   | chin              |   |
| <i>póom</i>                   | cheek             |   |
| <i>kéep</i>                   | side of lower jaw |   |
| <i>stmàat</i>                 | temple            |   |
| <i>kntùur</i>                 | crown             | cf. <i>kntùur pnìm</i> ‘top of a termitary’ |
| <i>klè</i>                    | hair on the head  |   |
| <i>khíul</i>                  | body hair         |   |
| <i>mât</i>                    | eye               |   |
| <i>hrmàay</i>                 | ear               |   |

|               |               |
|---------------|---------------|
| <i>mùh</i>    | nose          |
| <i>tnóh</i>   | mouth         |
| <i>ráaŋ</i>   | tooth         |
| <i>hntáak</i> | tongue        |
| <i>klàak</i>  | palate        |
| <i>hǎl</i>    | gums          |
| <i>tróoŋ</i>  | throat, voice |

Complex terms

|                     |  |  |
|---------------------|--|--|
| <i>krwèey klà</i>   | bare spot in the center of a whorl of hair | ‘left.unsown hair.on.the.head’                           |
| <i>hntú mùh</i>     | nostril                                    | ‘hole nose’  |
| <i>hntú kntùur</i>  | fontanel                                   | ‘hole crown’   |
| <i>hntú hrmàəy</i>  | ear canal                                  | ‘hole ear’   |
| <i>hntú tnóh</i>    | oral cavity                                | ‘hole mouth’   |
| <i>khúul hmpír</i>  | eyebrow                                    | ‘hair pumpkin’   |
| <i>khúul màt</i>    | eyelash                                    | ‘hair eye’   |
| <i>khúul káap</i>   | beard                                      | ‘hair chin’  |
| <i>khúul stmàat</i> | hair at the temples                        | ‘hair temple’  |
| <i>khúul kràw</i>   | whiskers, sideburns                        | ‘hair whiskers’ (Lao <i>gaw</i> )                        |
| <i>khúul tñmùuñ</i> | moustache                                  | ‘hair dirty.around.mouth’, from <i>mùuñ</i> ‘dirty face’ |
| <i>hntá kmñàam</i>  | hair at the neck                           | ‘tail cricket’   |
| <i>màt klóək</i>    | white of the eye                           | ‘eye white’  |
| <i>màt yíaŋ</i>     | iris and pupil                             | ‘eye black’  |
| <i>klóəŋ kók</i>    | Adam’s apple                               | ‘stone hogplum’  |
| <i>klóəŋ màt</i>    | eyeball                                    | ‘stone eye’  |
| <i>lá hrmàəy</i>    | ear-conch, pinna                           | ‘leaf ear’   |
| <i>rŋkóəŋ mùh</i>   | bridge of the nose                         | ‘mountain-range nose’                                    |
| <i>hmpúur màt</i>   | eyelid                                     | ‘skin eye’   |
| <i>hmpúur tnóh</i>  | lips                                       | ‘skin mouth’   |
| <i>ráaŋ tül</i>     | wisdom tooth                               | ‘tooth stick.up.through’                                 |
| <i>ráaŋ túut</i>    | molar tooth                                | ‘tooth bottom’   |
| <i>ráaŋ tíal</i>    | front tooth                                | ‘tooth top’  |
| <i>ráaŋ cntràas</i> | front tooth                                | ‘tooth lightning’  |
| <i>ráaŋ òm pù</i>   | milk-tooth                                 | ‘tooth liquid.breast’ (= ‘tooth milk’)                   |
| <i>tróoŋ yèl</i>    | uvula                                      | ‘throat yèl’   |
| <i>tíal hntáak</i>  | tip of the tongue                          | ‘top tongue’   |
| <i>hǎl làaŋ pəh</i> | upper gums                                 | ‘gum side up’  |
| <i>hǎl làaŋ tál</i> | lower gums                                 | ‘gum side down’  |

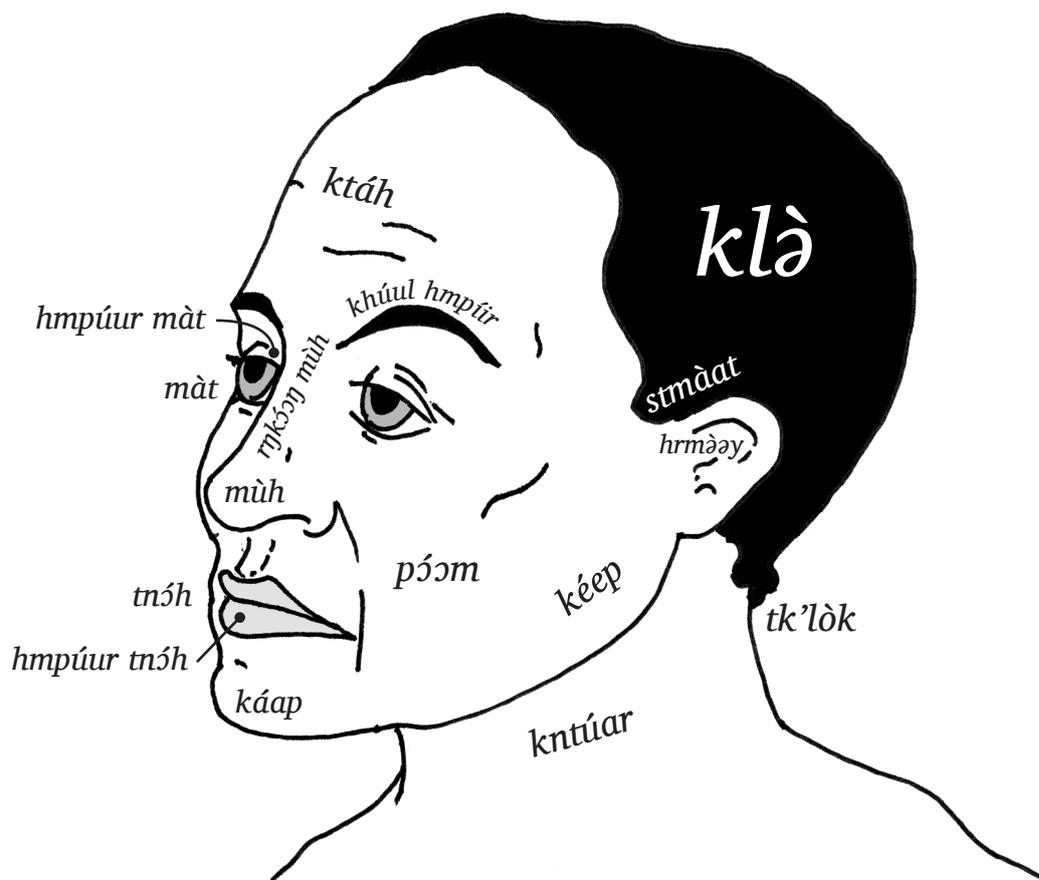


Figure 1: The head and neck

Both *khúul* ‘(body) hair’ and *hntú* ‘hole’ are common as heads in complex terms all over the body. *Khúul* refers to any hair except for the hair on the top of one’s head, which is *klà*. The meaning of a complex term with *khúul* as its head is easily inferable (‘shin hair’, ‘armpit hair’ etc.) and will not be listed. There are however three complex terms for facial hair with slightly different modifiers.

The first term is *khúul hmpír* ‘eyebrow’, lit. ‘pumpkin hair’, a complex term whose origin and meaning defies explanation at this point. The second term is *khúul tñmùuñ* ‘moustache’ where the modifier is originally a derived form of the root *mùuñ* ‘dirty face’.

- (6) *tnóh mèt cà tñmùuñ yòh ràa kà*  
 mouth 2SG dirty dirty.face go wash 3SG  
 ‘Your mouth is dirty, go and wash it!’

The third complex term is *khúul kràw* ‘whiskers, sideburns’. *kràw* is a loan from Lao *gaw* which already means ‘whiskers’. The Kammu addition of *khúul* is

probably a case of analogical levelling to make *kràw* more similar to the other complex terms for facial hair.

The teeth are divided into ‘back’ and ‘front’ like in many other languages, but the front teeth also have the alternative name *ráaŋ cntràas* ‘lightning teeth’. My informant suggests a metaphoric comparison of how both lightning and front teeth strike down and split things. The term for wisdom tooth, *ráaŋ tùl*, is less poetic and simply states that these teeth ‘come up through’.

One example of a culturally (or maybe ‘genetically’) based term is *màt yíaŋ* ‘black of the eye’ covering both the pupil and the iris. The reason for this conflation is simply that all Kammu have dark brown iris with no perceptually salient border to the pupil. When I showed my informant how my green iris contrast with the pupil he surprised me by asking “Do you think my (black of the) eye has two parts too?”. This question clearly shows that the ‘black of the eye’ constitutes one conceptual whole in Kammu.

### 3.1.3 The torso

Table 4: The torso (back and front)

| Kammu                | English                 | Details                               |
|----------------------|-------------------------|---------------------------------------|
| Simplex terms        |                         |                                       |
| <i>lòh</i>           | body, torso             |                                       |
| <i>kntròŋ</i>        | back                    |                                       |
| <i>plà</i>           | shoulder                | (possibly from Lao <i>ba</i> )        |
| <i>srnàat</i>        | shoulder blade          |                                       |
| <i>kntiip</i>        | upper back              |                                       |
| <i>kàam</i>          | lower back              |                                       |
| <i>lùuy</i>          | stomach, abdomen, belly |                                       |
| <i>póoŋ</i>          | area below the navel    |                                       |
| <i>kùiaŋ</i>         | waist                   |                                       |
| <i>àk</i>            | chest                   |                                       |
| <i>tráak</i>         | sides                   | approx. from armpit to waist          |
| <i>lmpía</i>         | flank                   |                                       |
| <i>kl?èk</i>         | armpit                  |                                       |
| <i>pù</i>            | breast                  |                                       |
| <i>tò</i>            | rump, behind            |                                       |
| Complex terms        |                         |                                       |
| <i>(hntí) kntiij</i> | navel                   | ‘(hole) navel’                        |
| <i>cmà kntiij</i>    | navel string            | ‘thread navel’                        |
| <i>póom tò</i>       | buttocks                | ‘protuberance rump’ (Lao <i>pom</i> ) |

|                   |                            |  |
|-------------------|----------------------------|--|
| <i>tríak càar</i> | lower part of side         | 'side spaced', reflecting the space between ribs |
| <i>tríak cìik</i> | upper part of side         | 'side close', reflecting the space between ribs  |
| <i>prlè pù</i>    | nipple                     | 'fruit breast'                                   |
| <i>cnóor pù</i>   | nipple                     | 'summit breast'                                  |
| <i>pìt tríik</i>  | inward bend above buttocks | 'behind frog'                                    |
| <i>hntú ʔyíak</i> | anus                       | 'hole shit' (impolite term)                      |
| <i>hntú klʔùŋ</i> | anus                       | 'hole hipbone' (preferred term)                  |
| <i>hntú pìt</i>   | anus                       | 'hole behind' (preferred term)                   |

There is no unique term for the torso. *l̥h* is the common term for the entire body, but its scope usually shrinks when it is contrasted with other terms. This behaviour is similar to that of English 'body' in phrases like 'she has scars on her face and her arms but none on her body'. As mentioned above, *l̥h* is contrasted with *kmpóŋ* 'head' and *càŋ* 'legs' as one of three 'important parts' of the body. In this case *l̥h* obviously corresponds to the torso, or at least the body minus the head and legs.

Similar to English 'stomach', *l̥uy* refers to the visible part on the torso as well as to the internal organ. You can have a *l̥uy nám* 'big belly' as well as a *l̥uy kràŋ* 'hard (constipated) stomach', and a pregnant woman is said to *àh l̥uy* lit. 'have stomach'.

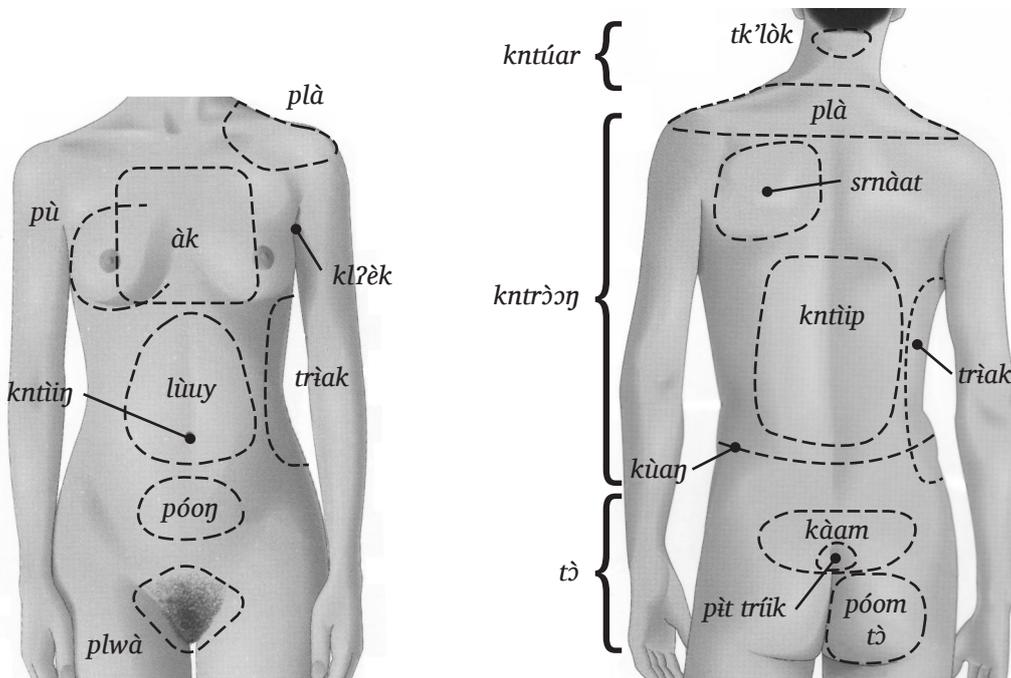


Figure 2: The torso

The term *p̄it tr̄ik* ‘frog behind’ is one of two complex terms that liken a structure of the human body to that of an animal. *p̄it tr̄ik* is the little inward bend right above the buttocks, similar to a structure on a frog’s back where the tadpole’s tail originally was attached. The second term is *hntá kmñàam* for neck hair in the shape of a ‘cricket tail’.

### 3.1.4 The arm and the hand, measurements

Table 5: The arm and hand

| Kammu                    | English                   | Details   |
|--------------------------|---------------------------|---|
| Simplex terms            |                           |   |
| <i>tí</i>                | arm                       | from the shoulder-joint to the finger tips          |
| <i>kíaŋ</i>              | upper arm                 |   |
| <i>sók</i>               | forearm                   | (Lao <i>sok</i> )                                   |
| Complex terms            |                           |   |
| <i>któ tí</i>            | (flesh of) forearm        | ‘bud arm’   |
| <i>tlmíaŋ tí</i>         | segment of the arm        | ‘segment arm’                                       |
| <i>sr̄h̄èek tí</i>       | area just above the wrist | ‘inward.bend arm’, from <i>h̄èek</i> ‘bent inwards’ |
| <i>kr̄l̄èey tí</i>       | wrist                     | ‘joint arm’   |
| <i>kr̄l̄èey plá</i>      | shoulder-joint            | ‘joint shoulder’                                    |
| <i>kr̄l̄èey kíaŋ</i>     | elbow                     | ‘joint upper.arm’                                   |
| <i>kr̄l̄èey cr̄k̄iul</i> | knuckle, finger joints    | ‘joint digit’                                       |
| <i>s̄éŋ tí</i>           | knuckle, finger joints    | ‘joint digit’ (less common)                         |
| <i>cr̄k̄iul tí</i>       | finger                    | ‘digit arm’   |
| <i>mà tí</i>             | thumb                     | ‘mother arm’  |
| <i>kók̄on (tàam) tí</i>  | little finger             | ‘child (outgrowth) arm’                             |
| <i>tmmók̄ŋ tí</i>        | ingernail                 | ‘nail arm’  |
| <i>làay tí</i>           | wrinkles in hand          | ‘stripes arm’                                       |
| <i>ktáak tí</i>          | palm of the hand          | ‘palm arm’, see below for further definition        |
| <i>tál cr̄k̄iul</i>      | ingertip                  | ‘top digit’   |
| <i>kók̄on kné</i>        | biceps                    | ‘child mouse’                                       |

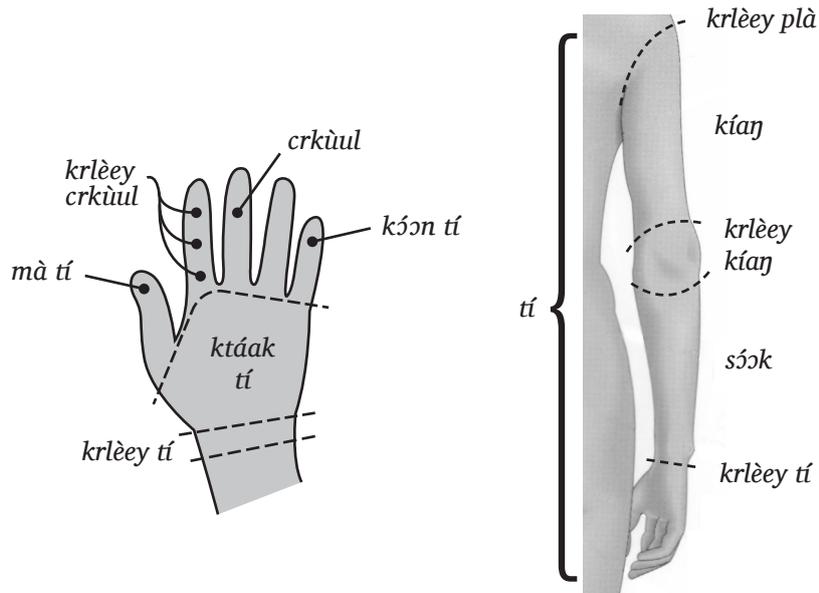


Figure 3: The hand and the arm

The term *tí* covers the entire upper extremity from the shoulder joint to the fingertips. The existence of this encompassing term does not prevent terms that cover smaller parts like ‘upper arm’ and ‘forearm’, but there is no separate term covering only the hand.

When *tí* is used together with certain verbs and adjectives its meaning, however, often corresponds to the English use of ‘hand’. The hand is very versatile, capable of assuming more shapes and performing more actions than any other part of *tí*. Therefore it will be referred to more often and used together with a large variety of other words. A few examples are *rwàac tí* ‘shake hands’, *nòm tí* ‘clench one’s fist’ and *sntúk tí* ‘hold hands interlacing each other’s fingers’. The verbs by themselves translate to ‘grab’, ‘squeeze’ and ‘entwine’ respectively.

The term *ktáak tí* is translated above as ‘palm of the hand’, but a more usage-sensitive translation might be ‘area between knuckles and wrist’. It is for example possible to refer to the back of the hand as ‘top of *ktáak tí*’.

- (7) ò àh màk hlyðay ktáak tí  
 1SG have tattoo top palm arm  
 ‘I have a tattoo on the back of my hand’

The term *crkùul* corresponds to ‘digit’ and is the head of the complex terms for both *crkùul tí* ‘finger’ and *crkùul cìaŋ* ‘toe’. As a simplex term the primary meaning of *crkùul* is ‘finger’. Even in a context revolving around the foot, *crkùul cìaŋ* is preferred. Similar to the different interpretations of *tí* mentioned above, this is likely due to the fact that we use our fingers for more purposes than we use our toes.

Since *crkùul* is ambiguous, *tmmóŋ* ‘nail’ is modified by either *tí* or *cìàŋ*. My informant stresses that *tmmóŋ* is always located on *crkùul*, therefore a complex term such as *\*tmmóŋ crkùul* would be uninformative.

Some complex terms are however modified by *crkùul*, e.g. *krlèey crkùul*, a term that covers the knuckle as well as the finger’s other joints. The reason that the joints of the finger are sufficiently described as ‘digit joints’ is probably because they are perceived as more important than the joints of the toe. Similarly, English ‘knuckle’ without any modifier never refers to the foot. Toenails are arguably contrasted with fingernails more often than ‘toe joints’ are contrasted with ‘finger joints’, so *tmmóŋ* is therefore more appropriately modified by *tí*.

If a Kammu speaker wants to refer to the ‘toe joints’ or the ‘toe-tip’ after all, both *tíal crkùul* and *krlèey crkùul* can be further modified by *tí* or (in this case) *cìàŋ* in a three-part compound.

A remarkable case of cross-linguistic conceptual similarity is found in the Kammu term for the biceps muscle: *kóŋ kné*. Its literal translation ‘baby mouse’ is similar to Latin *musculus* (*mus* ‘mouse’ with a diminutive suffix) and the connection between Arabic ‘*adala* ‘muscle’ and ‘*adal* ‘gerbil’.

Table 6: Bodily measurements

| Kammu         | English   | Details (things measured)                          |
|---------------|---|--|
| Simplex terms |   |  |
| <i>srŋèek</i> | circumference covered by thumb and middle finger                    | bundles of sticks, from <i>ŋèek</i> ‘bent inwards’ |
| <i>klàn</i>   | circumference covered by thumb and middle finger of both hands      | bundles of sticks (appr. 3 <i>srŋèek</i> )         |
| <i>tí</i>     | as much as can be carried under the arm                             | bundles of sticks (appr. 3 <i>klàn</i> )           |
| <i>òŋm</i>    | circumference covered by outstretched arms with fingertips touching | trees  |
| <i>wàa</i>    | distance between fingertips of outstretched arms (fathom)           |  |
| <i>kùip</i>   | distance between tips of outstretched thumb and middle finger       |  |
| <i>nìiw</i>   | distance across finger  | (Lao <i>niiw2</i> , meaning ‘digit’)               |
| <i>sòŋk</i>   | distance between elbow and fingertips (cubit)                       | (Lao <i>sòŋk</i> )                                 |
| <i>ktáak</i>  | distance across palm and thumb                                      |  |
| <i>krtàak</i> | amount held in cupped hand(s) (handful)                             | rice, water  |

|                   |  |  |
|-------------------|--|--|
| <i>rkcók</i>      | amount held in hand  | from <i>cók</i> ‘take out from a hole’                         |
| <i>rtpòt</i>      | a pinch  | rice, salt, from <i>pòt</i> ‘to pinch’                         |
| <i>kám</i>        | distance across fist   | actually used for measuring girth, see below (Lao <i>kam</i> ) |
| <i>rncàan</i>     | as far as one can reach                                      | appr. measurement, from <i>càan</i> ‘reach for’                |
| <i>káan</i>       | pace   | appr. measurement of land or a path                            |
| Complex terms     |  |  |
| <i>kám ʔyǎn</i>   | distance across fist + outstretched thumb                    | ‘ <i>kám ʔyǎn</i> ’ (Lao <i>yǎn</i> ‘to stand’)                |
| <i>kám kòm</i>    | distance across fist + bent thumb                            | ‘ <i>kám kòm</i> ’   |
| <i>cák klʔèk</i>  | distance between fingertip and armpit                        | ‘reach armpit’   |
| <i>pháa àk</i>    | distance between fingertip and sternum (half fathom)         | ‘cleave chest’   |
| <i>cók màh</i>    | distance between tips of outstretched thumb and index finger | ‘take.out rice’  |
| <i>tmmóŋ yíaŋ</i> | appr. as small as the dirty part of a nail                   | ‘nail black’   |
| <i>màt yíaŋ</i>   | appr. as small as the iris and pupil                         | ‘eye black’  |
| <i>sók klpóm</i>  | cubit with clenched hand                                     | ‘cubit fist’   |
| <i>ràa tí</i>     | distance from wrist to fingertip                             | ‘wash arm’   |

Most of the attested bodily measurements are derived from different spans of *tí*, but a few of the homophonous terms have a slightly different scope depending on their use. For example, *sók* usually covers the forearm from the elbow to the wrist, but as a measurement it includes the hand.

Buffaloes and other large animals are measured in *kám* ‘distance across fist’. The animal’s circumference is first measured with a string which is then folded double and measured in *kám*. The measurement word itself is not usually mentioned, so a full-grown buffalo can be called *kwàay síp* ‘ten (*kám* around) buffalo’.

*krtàak (tí)* can also be used as a verb meaning ‘cup both hands together’:

- (8) *kàə krtàak tí tɛ̀ króŋ kmúul*  
 3SG ‘cup’ arm REFL beg money  
 ‘He cups his hands and begs for money’

### 3.1.5 The lower body

Table 7: The leg

| Kammu                   | English                                  | Details  |
|-------------------------|--|--|
| Simplex terms           |  |  |
| <i>cìàŋ</i>             | leg, foot                                | see discussion about polysemy below                |
| <i>plóŋ</i>             | lower leg                                | from knee to ankle                                 |
| <i>krwàac</i>           | lower leg                                | from knee to toe, less common                      |
| <i>plù</i>              | thigh                                    |  |
| <i>knúun</i>            | knee                                     |  |
| <i>pltàk</i>            | hollow of the knee                       |  |
| <i>prcòl</i>            | heel                                     |  |
| <i>prcèr</i>            | area above the heel                      |  |
| <i>ŋðòŋ-ŋðòŋ</i>        | shin                                     | unanalyzable reduplication                         |
| Complex terms           |  |  |
| <i>tłmíàŋ plù</i>       | thigh                                    | ‘segment thigh’                                    |
| <i>tłmíàŋ plóŋ</i>      | lower leg                                | ‘segment lower.leg’                                |
| <i>plé plóŋ</i>         | calf muscle                              | ‘fruit lower.leg’                                  |
| <i>klóŋ liap</i>        | knee cap                                 | ‘stone liap.fruit’                                 |
| <i>póom róoy</i>        | ankle protuberance<br>(medial malleolus) | ‘protuberance spirit’ (Lao <i>pom</i> )            |
| <i>trpàk plíam</i>      | area where foot<br>meets ankle           | ‘passing leech’, see below                         |
| <i>ktáak cìàŋ</i>       | sole of the foot                         | ‘palm leg’   |
| <i>crkùul cìàŋ</i>      | toe                                      | ‘digit leg’  |
| <i>krlèey plù</i>       | hip-joint                                | ‘joint thigh’                                      |
| <i>krlèey cìàŋ</i>      | ankle                                    | ‘joint leg’  |
| <i>srŋèek cìàŋ</i>      | area just above the ankle                | ‘inward.bend leg’, from <i>ŋèek</i> ‘bent inwards’ |
| <i>tłmóŋ cìàŋ</i>       | toenail                                  | ‘nail leg’   |
| <i>mà cìàŋ</i>          | big toe                                  | ‘mother leg’                                       |
| <i>kðòŋ (tàam) cìàŋ</i> | little toe                               | ‘child (outgrowth) leg’                            |

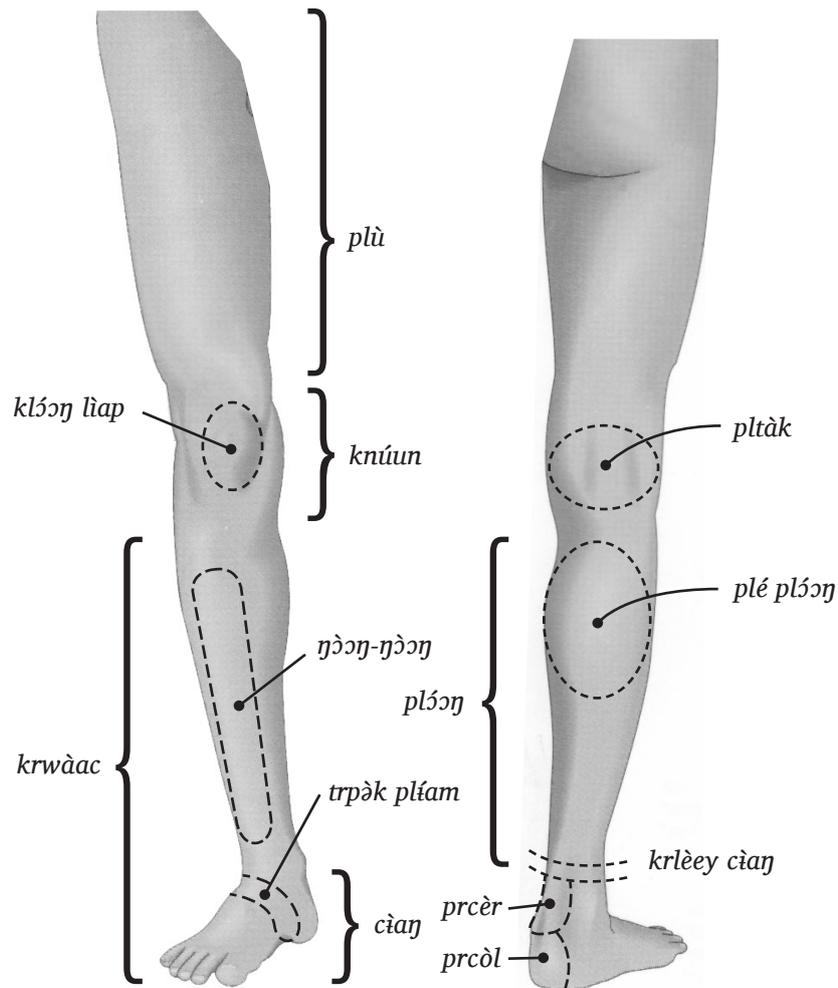


Figure 4: The leg

At first sight, the divisions of the upper and the lower extremities are very similar: they both have two main parts and three main joints, with *ktáak*, *crkùul* and *tnmóη* at the tips. However, the term *cìanη* is elusive and behaves differently from the supposedly parallel term *tí*.

When my informant was presented with *tí* and *cìanη* as context-less isolated words in the body coloring task, he marked them both as covering the entire upper and lower extremity, respectively. But as soon as the words were mentioned in a context that involves a specific location, e.g. ‘he has an ant-bite/a mole on his *tí/cìanη*’ or ‘his *tí/cìanη* hurts/burns’, the scope of *cìanη* shrunk to cover only the foot. Similar contextual use did not affect the scope of *tí*.

In another kind of drawing task I asked my informant to mark a few ant-bites on a man’s *cìanη*. He began marking a few dots on the foot but stopped at the ankle. At this point I still thought of *cìanη* as the entire leg, so I pointed to the calf and asked if that was not *cìanη* as well, but he answered “no, that’s his *plóη*”. Again, this ‘contextual narrowing’ applies only to the lower extremity.

Antbites on a man's upper arm can be called ant-bites on his *tí* if no further precision is needed, but antbites on a man's thigh are always antbites on his *plù*. Antbites on a man's *cìan* are located below his ankle, and *cìan* cannot be 'expanded' to cover the thigh in these contexts.

A telling example of the difference between *tí* and *cìan* is their use together with the word *tlmìaŋ* 'segment'. The *tí* can be divided into two *tlmìaŋ tí* 'arm segments' namely the upper arm and the forearm, but the term *\*tlmìaŋ cìan* does not exist at all. Instead, the thigh and the calf are segments of their own, not part of something else: *tlmìaŋ plù* and *tlmìaŋ plóŋ*.

There are also cases where *plù* is used in ways that would normally be expressed with 'leg' in English, for example *cltàh plù* 'spread one's legs' or

- (9) *kàə síŋ clkàh-kèh plù tèe*  
 3SG sleep crossed.legs thigh REFL  
 'He sleeps with his legs crossed'

*cìan* can refer to the entire leg only as long as there is no explicitly mentioned location that could cause a 'contextual narrowing' (e.g. place of ant-bite/mole/touch/pain etc.).

- (10) *cìan/\*plù kàə skár cŋnòŋ*  
 leg/\*thigh 3SG straight stiff-legged  
 'He cannot bend his leg/\*thigh', 'His leg/\*thigh is stiff'

The polysemy of *cìan* is one of *vagueness*. This means that *cìan* can be ascribed one quality that activates the 'contextual narrowing' and at the same time another quality that applies to the entire leg:

- (11) *cìan ò cú dée skár cŋnòŋ dée*  
 leg 1SG hurt also straight stiff-legged also  
 'My *cìan* hurts and is (also) stiff'

Some of the other terms found on the leg also deserve further mentioning. For example the complex term *trpàk plíam* that covers the perceptually inconsiderable area where the foot meets the ankle. The term translates to 'leech passing', simply because leeches often attach themselves to this area.

There are also terms for three more or less protruding areas of the leg, all expressed in different ways. The knee cap is named *klóŋ lìaŋ*, likening it to a stone of the *lìaŋ* fruit. Similarly, the Adam's apple, *klóŋ kók*, is likened to the stone of a hogplum, and an eyeball is *klóŋ màt*, 'stone of the eye'.

The calf muscle is *plé plóŋ*, 'fruit of the calf', possibly because it is softer than the knee cap in the same way as a fruit is softer than a stone.

The third word used in these complex terms, *póom*, is less metaphorical and simply means ‘knob, protuberance’. It is found in *póom t̀̀*, ‘buttocks’ lit. ‘rump protuberance’, and *póom róoy* ‘ankle protuberance’. The literal translation is ‘spirit protuberance’, but my informant could not find any special reason behind this, including the idea that this was the home of the ‘foot spirit’.

Table 8: Genitalia

| Kammu                    | English            | Details              |
|--------------------------|--------------------|----------------------|
| Simplex terms            |                    |                      |
| <i>plwà</i>              | crotch             |                      |
| <i>l̀̀k, tlé</i>         | penis              |                      |
| <i>ké, k̀̀n</i>          | vulva, vagina      |                      |
| <i>rám</i>               | vulva, vagina      | <i>R̀̀k</i> dialect  |
| <i>kláa</i>              | scrotum            |                      |
| <i>héel</i>              | (protruding) labia |                      |
| Complex terms            |                    |                      |
| <i>któŋ kláa</i>         | testicle           | ‘egg scrotum’        |
| <i>khúul l̀̀k / ké</i>   | pubic hair         | ‘hair penis / vulva’ |
| <i>kmpóŋ l̀̀k</i>        | head of penis      | ‘head penis’         |
| <i>kmpóŋ ké</i>          | clitoris           | ‘head vagina’        |
| <i>hmpúur l̀̀k</i>       | foreskin           | ‘skin penis’         |
| <i>hmpúur ké</i>         | labia              | ‘skin vagina’        |
| <i>pràŋ pl̀̀</i>         | crotch             | ‘between thighs’     |
| <i>tè cmk̀̀n / cmr̀̀</i> | privates           | ‘of woman / man’     |

Terms for genitalia are used in everyday language and do not always carry the same strong sexual connotations that they often do in English.

[A story] certainly does not become risky, just because the intimate parts of the body are mentioned by name. [...] There seems to be no [equivalent] set of completely neutral, everyday words in English pertaining to sexual life. (Lindell et al 1980:25f)

Nonetheless, many of these words can be used in expressions of frustration e.g. *tlé m̀̀h?* ‘what the dick?’ or insults *ké mà m̀̀e!* ‘your mother’s pussy!’.

### 3.1.6 Internal organs and animal body parts

Table 9: Internal organs and skeleton

| Kammu                     | English                  | Details   |
|---------------------------|--------------------------|---|
| Simplex terms             |                          |   |
| <i>ríaη</i>               | intestine, bowels, guts  |   |
| <i>hrñiam</i>             | heart, mind, breath      |   |
| <i>klán</i>               | kidney                   |   |
| <i>hntáyη</i>             | brain                    |   |
| <i>ktúh</i>               | stomach, abdomen         |   |
| <i>kmnùum</i>             | urinary bladder          | from <i>nùum</i> ‘urine’                          |
| <i>ljàr</i>               | bone marrow              |   |
| <i>páaη</i>               | spleen                   | (Lao <i>paan2</i> )                               |
| <i>c?áaη</i>              | bone                     |   |
| <i>kρνðon</i>             | womb, uterus             | from <i>kóon</i> ‘child’                          |
| Complex terms             |                          |   |
| <i>c?áaη kmpóη</i>        | cranium                  | ‘bone head’                                       |
| <i>c?áaη kl?ùη</i>        | hipbone                  | ‘bone hip’  |
| <i>c?áaη kntrðonη</i>     | spine                    | ‘bone back’                                       |
| <i>c?áaη àk</i>           | collar-bone, breast bone | ‘bone chest’                                      |
| <i>c?áaη kràp</i>         | gristle                  | ‘bone crispy’, from <i>krùp</i> ‘crunching sound’ |
| <i>c?áaη tríak</i>        | ribs                     | ‘bone side’                                       |
| <i>(c?áaη) rñsónη mùh</i> | nose cartilage           | ‘(bone) <i>rñsónη</i> nose’                       |
| <i>hmpúuy kóon</i>        | placenta                 | ‘nest child’                                      |
| <i>tlóom (ràη)</i>        | liver                    | ‘liver ( <i>ràη</i> )’ (Lao <i>raan2</i> )        |
| <i>tlóom tíus</i>         | lungs                    | ‘liver foam’, see below                           |
| <i>ríaη cè</i>            | large intestine, colon   | ‘intestine dirty’                                 |
| <i>ríaη sít</i>           | large intestine, colon   | ‘intestine end’ (Lao <i>sut</i> )                 |
| <i>ríaη tñkà</i>          | appendix                 | ‘intestine forked’                                |
| <i>ríaη plìa</i>          | small intestine          | ‘intestine clean’                                 |
| <i>tñòk hrñiam</i>        | heart muscle             | ‘stalk heart’                                     |
| <i>tñòk prcáyη</i>        | bile duct                | ‘stalk bile’                                      |
| <i>hmpúuy prcáyη</i>      | gall bladder             | ‘nest bile’                                       |
| <i>rmmé nám</i>           | large sinew              | ‘sinew large’ (e.g. the Achilles’ tendon)         |
| <i>rmmé nè</i>            | small sinew              | ‘sinew small’                                     |
| <i>rmmé ñèer</i>          | thin sinew               | ‘sinew thin’                                      |
| <i>rmmé màam</i>          | blood vessel             | ‘sinew blood’                                     |
| <i>rmmé cñáar</i>         | blood vessel             | ‘sinew green’ (also covers Eng. ‘blue’)           |

The Kammu do not see their own internal organs more often than other people do, so the knowledge about them comes mainly from observations of animal organs from hens, pigs, buffaloes and other animals. When an animal is killed,

all of the organs are usually eaten, except for the urinary bladder which can be saved and used as a ball. Some of the inner organs are carefully divided and eaten during certain sacrificial ceremonies (Tayanin 2006:60ff).

The term *hrñiam* is widely used in expressions describing emotion and attitude, either as the head of an adjectival phrase or as an argument to a verb. Some of these expressions can be translated verbatim into English, perhaps with a poetic ring to them, e.g. *hrñiam kàə lə* ‘his heart is good’. Others have a different meaning than their English translation, e.g. *nám hrñiam* ‘big heart’ meaning ‘brave’, and *hrñiam kàə rəon* ‘he has a hot heart’ meaning ‘he is impatient’.

Another aspect of *hrñiam* concerns breathing. This conceptual link is found in many languages, for example between the two originally Latin words *spirit* and *respiration*. The common word for ‘to breathe’ is *tóh hrñiam* lit. ‘to push out breath’, and ‘to hold one’s breath’ can be expressed as *ìt hrñiam* lit. ‘to stop (one’s) breath’.

The heart muscle is called *tljòk hrñiam* ‘heart stalk’, likening the heart to a (fruit with a) stalk. This stalk provides the entire body with *hrñiam*, allowing us to move, think and live. The gall bladder, on the other hand, is called *hmpúuy prcáj* ‘bile nest’ with *tljòk prcáj* ‘bile stalk’ referring to the bile duct, which leads bile to the digestive system.

The word *tlóom* means ‘liver’ on its own (as do its cognates in other Mon-Khmer languages), but it is sometimes used with an unanalyzable modifier *rəŋ* in order to contrast the liver with the lungs, *tlóom túus*. The modifier *túus* is glossed as ‘foam’, but this meaning is likely a result of folk etymology. A more plausible origin is that *túus* comes from Proto-Mon-Khmer *\*təh* meaning ‘breast’. A similar form is found in the closely related Waic languages (Shorto 2006:508).

Animal body part terms often bear the same name as the (more or less) corresponding human body parts. Birds and mammals all have *khúul*, a buffalo’s forelegs are *tí* and its hindlegs are *càŋ*, a cow’s udder is *pù*. Some of the terms that do differ are listed in the table below.

Table 10: Some animal body parts

| Kammu         | English           | Details        |
|---------------|-------------------|----------------|
| Simplex terms |                   |                |
| <i>sñtəon</i> | snout, beak, nose | pig, bird, dog |
| <i>ŋàa</i>    | tusk              | elephant       |
| <i>srwèek</i> | fang, tusk        | tiger, boar    |

|                    |                       |  |
|--------------------|-----------------------|--|
| <i>két</i>         | scales                | fish, lizard, snake                          |
| <i>rypðɔy</i>      | whiskers, antenna     | cat, tiger, catfish, insect                  |
| <i>hrnùuc</i>      | sting                 | wasp, from <i>húuc</i> ‘to sting’            |
| <i>rywàay</i>      | fin                   | from <i>wàay</i> ‘swim’ (Lao <i>hwaay2</i> ) |
| <i>cntrèŋ</i>      | horn, antler, antenna | buffalo, deer, insect                        |
| <i>pnûr</i>        | wing                  | bird, insect                                 |
| <i>hntá</i>        | tail                  |  |
| Complex terms      |                       |  |
| <i>khúul srkàh</i> | bristles              | ‘hair bristles’, pigs                        |
| <i>cŋkhál ré</i>   | porcupine quill       | ‘quill porcupine’                            |

Most of the terms that are unique to animals represent body parts with no human equivalent (antlers, wings, scales etc.) or ones with a distinctly different shape (tusks, snout etc.). It is not unusual that plants and fruits are named after animal body parts, including some of the less appetizing ones, e.g. *kláa wá* ‘hairy mountain fig’, lit. ‘monkey scrotum’, or *kríay ʔyíak pè* ‘goat shit plum’.

### 3.1.7 Words related to the skin

Table 11: Words related to the skin

| Kammu             | English                   | Details   |
|-------------------|---------------------------|---|
| Simplex terms     |                           |   |
| <i>hmpúur</i>     | skin                      | also of animals   |
| <i>òh</i>         | wound                     |   |
| <i>ès</i>         | swelling                  |   |
| <i>pìn</i>        | scar                      |   |
| <i>pràay</i>      | freckles, spots           |   |
| <i>yùut</i>       | bruised                   | also the color ‘dark red’   |
| <i>prtès</i>      | chapped skin              |   |
| <i>knsár</i>      | spots on one’s skin       | e.g. from sitting near a fire, likening it to the pattern on a <i>sár</i> ‘civet cat’ |
| <i>táak</i>       | jaundiced, yellow skin    |   |
| <i>tnlàh</i>      | cracked skin              | mostly on the feet ( <i>cìay</i> ~)   |
| Complex terms     |                           |   |
| <i>ʔyíak rðɔy</i> | mole, blemish             | ‘shit fly’  |
| <i>nùum tkúut</i> | blemish, spot on the skin | ‘piss quail’  |
| <i>kóon crkés</i> | goose bumps               | ‘small goose.flesh’   |

Another case of conceptual similarity between languages is the Kammu expression for ‘get goose bumps’, *lian (kóon) crkés* ‘appearing (small) goose flesh’.

### 3.1.8 Bodily fluids and emissions

Table 12: Bodily fluids and emissions

| Kammu               | English                   | Details  |
|---------------------|---------------------------|--|
| Simplex terms       |                           |  |
| <i>màam</i>         | blood                     |  |
| <i>híal</i>         | vomit                     |  |
| <i>plúŋ</i>         | pus                       |  |
| <i>ʔyíak</i>        | shit, residue             |  |
| <i>rùk</i>          | dirt                      | e.g. behind the ear                              |
| <i>kmháak</i>       | phlegm in the throat      | also ‘cough up phlegm’                           |
| Complex terms       |                           |  |
| <i>ʔyíak ráaŋ</i>   | plaque                    | ‘shit tooth’                                     |
| <i>ʔyíak hìr</i>    | ear wax                   | ‘shit whirl’                                     |
| <i>èec pèec</i>     | eye matter                | ‘èec eye.matter’, see 3.3.1                      |
| <i>hmpúut kmpóŋ</i> | dandruff                  | ‘shedded.skin head’                              |
| <i>òm mùh</i>       | runny snot                | ‘liquid nose’                                    |
| <i>òm nùum</i>      | urine                     | ‘liquid urine’                                   |
| <i>òm màt</i>       | tears                     | ‘liquid eye’                                     |
| <i>òm hmlù</i>      | sweat                     | ‘liquid sweat’                                   |
| <i>òm ìn</i>        | sweat                     | ‘liquid damp’ (Lao <i>ʔin</i> )                  |
| <i>òm tʔá</i>       | saliva                    | ‘liquid saliva’                                  |
| <i>òm kcóɔr</i>     | saliva (running), spittle | ‘liquid saliva’                                  |
| <i>òm kcúh</i>      | spittle                   | ‘liquid spit’                                    |
| <i>òm prcáŋ</i>     | bile                      | ‘liquid bile’, possibly from <i>cáŋ</i> ‘bitter’ |
| <i>òm ké</i>        | vaginal secretion         | ‘liquid vagina’                                  |
| <i>òm ñùir</i>      | amniotic fluid            | ‘liquid slippery’                                |
| <i>òm tlé</i>       | semen                     | ‘liquid penis’                                   |
| <i>òm pù</i>        | milk                      | ‘liquid breast’                                  |

*òm* is probably the most common head in complex body part terms. It is used about all kinds of fluids – from various kinds of honey to the many rivers and streams meandering through the traditional Kammu homeland.

Some of the compounds with *òm* have a body part as their modifier, but others are seemingly pleonastic combinations of *òm* plus a modifier that translates to a bodily fluid on its own. This might be another case of analogical levelling similar to the one with *khíul* suggested above.

### 3.1.9 Verbs related to the body

Table 13: Verbs related to the body

| Kammu               | English                        | Details                         |
|---------------------|--------------------------------|---------------------------------|
| Simplex terms       |                                |                                 |
| <i>nùum</i>         | piss, urinate                  |                                 |
| <i>ʔyíak</i>        | shit, defecate                 |                                 |
| <i>pùum</i>         | chew                           | with closed mouth               |
| <i>kwà</i>          | chew                           | with open mouth, like a buffalo |
| <i>púum</i>         | fart                           |                                 |
| <i>kráas</i>        | laugh, smile                   |                                 |
| <i>kcúh</i>         | spit                           |                                 |
| <i>hḡkóʔt</i>       | cough                          |                                 |
| <i>smʔyéé</i>       | shut one eye                   | from <i>ʔyéé</i> ‘one-eyed’     |
| <i>yàp</i>          | close one’s eyes               |                                 |
| <i>kpyàp</i>        | blink                          | from <i>yàp</i> , see below     |
| <i>yàam</i>         | cry (tears)                    |                                 |
| <i>híal</i>         | vomit                          |                                 |
| <i>kmpùk</i>        | gargle                         |                                 |
| <i>ḡáap</i>         | yawn                           |                                 |
| <i>ḡòc</i>          | swallow                        |                                 |
| <i>rùh</i>          | have diarrhoea                 |                                 |
| <i>lkùuy</i>        | punch, beat with the knuckles  |                                 |
| <i>tùh, nòok</i>    | punch, beat with side of fist  |                                 |
| <i>kntáh, kntíp</i> | slap                           |                                 |
| <i>klñì</i>         | wipe, rub                      | ~ <i>mùh</i> , ~ <i>màt</i>     |
| <i>klwèc</i>        | pick out from a hole           | ~ <i>mùh</i> ‘pick one’s nose’  |
| <i>khúr, tmriás</i> | blow one’s nose                | ~ <i>mùh</i>                    |
| <i>wiãñ, ðòt</i>    | wipe with the back of the hand | ~ <i>mùh</i>                    |
| <i>cnáam</i>        | sneeze                         |                                 |
| <i>kmháh</i>        | blow with mouth wide open      | in order to warm something      |
| <i>húr</i>          | blow                           | ~ <i>òh</i> ‘blow on a wound’   |
| <i>plók</i>         | jump, bounce                   |                                 |
| Complex terms       |                                |                                 |
| <i>tóh hrñiam</i>   | breathe                        | ‘push.out breath’               |
| <i>lúh lùuy</i>     | have diarrhoea                 | ‘flow.through.a.hole stomach’   |
| <i>klpóom tí</i>    | clench one’s fist              | ‘clench arm’                    |
| <i>hák kóot</i>     | have cramp                     | ‘contract cramp’                |
| <i>hót rmmé</i>     | have cramp                     | ‘shrink sinew’                  |

Many of the verbs describing movement or posture can be modified and nuanced by a special category of words called *expressives*. These can themselves be further nuanced in regard to number, size and temporal aspect by means of reduplication, affixation and vowel changes (Svantesson 1983:78f, 115ff).

- (12) *kàà ròh trnàŋ rŋʔwáay rŋʔwít*  
 3SG go.over bridge swing one's arms  
 'He walks across the (thin) bridge balancing with his arms'

One illustrative example of Kammu's derivational affixation is the verb *yàp* 'close one's eyes' and its frequentative form *kpyàp* 'to blink'. The nominalized form of the latter verb is (*mòoy*) *kryàp (màt)* '(one) blink (of the eye)', used as a temporal measurement similar to English '(in the) blink of an eye'.

## 3.2 Categorization of body part terms

My informant often pointed out that the phrases used for this investigation sound strange because of their content. Their syntactical structure is the same as in fully acceptable everyday questions and statements like 'where is your knife?' and 'my basket is in the house', but the whole scenario is implausible: why would anyone be uncertain about clearly visible traits of something so well-known as our own human body?

Nonetheless, some of these phrases are perceived as wrong and others as correct, allowing me to use them as a basis for the following categorizations.

### 3.2.1 Partonomic categorization

As already mentioned, Kammu has no word corresponding to the English 'body part' or even 'part'. This in itself cannot disprove the existence of a body partonomy, but it does make it impossible to prove that other methods of investigation could access the partonomic categorization. The 'entailment test' (see 2.1) has been suggested as one such 'access way', but in Kammu this method seems to access a possessive categorization. Of course it could be the case that both the entailment test and the possessive test access a partonomic hierarchy, but again: it is impossible to prove. These two categorizations will therefore be described in the section below instead.

### 3.2.2 Entailment-possessive categorization

During the analysis of data from the different kinds of tests it soon became clear that the entailment test and the possessive test are merely two ways of accessing the same categorization. Accordingly, this will be called the *entailment-possessive categorization*.

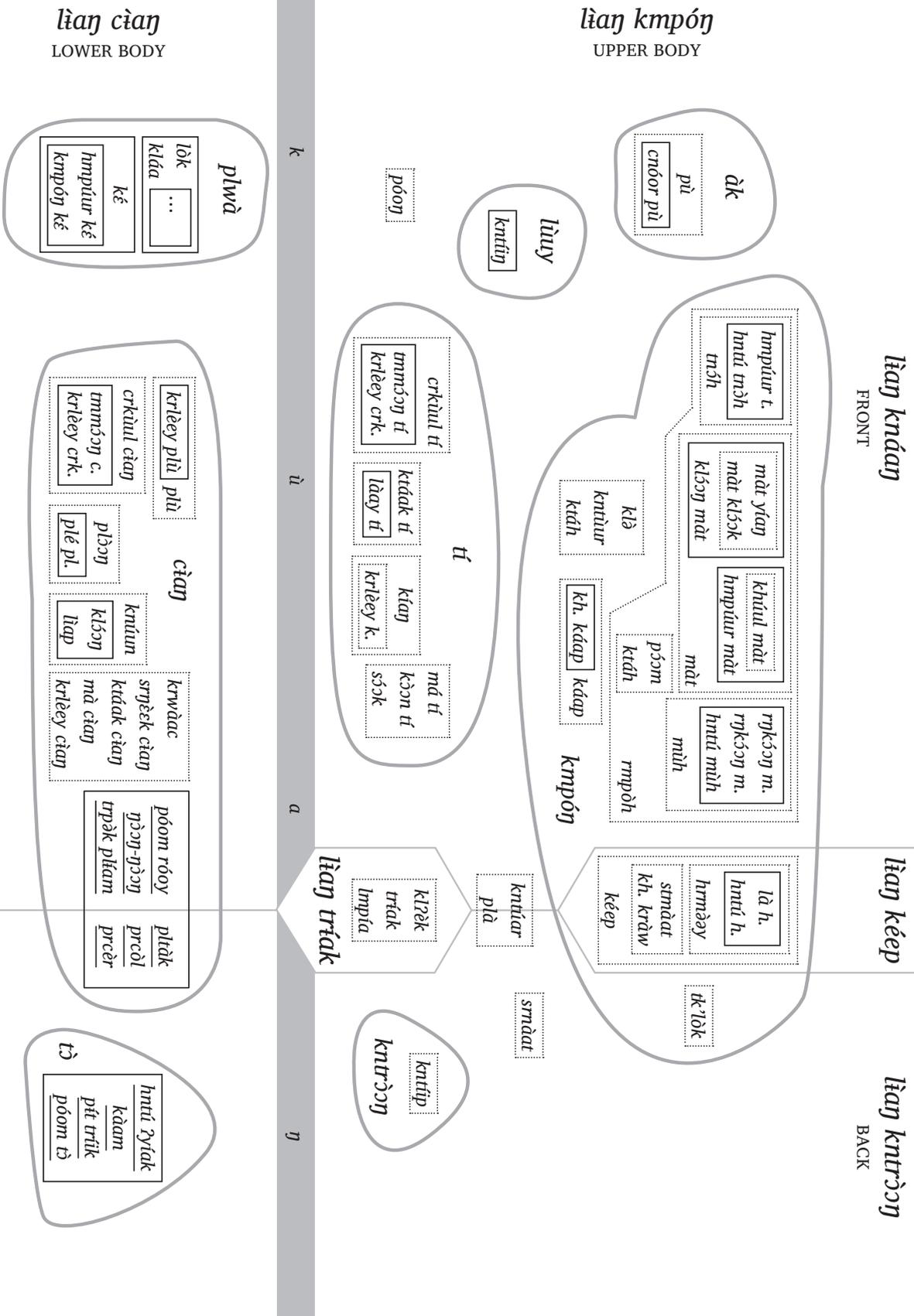


Figure 5: Graphic representation of the possessive hierarchy

The main difference between these ‘access ways’ is that the entailment test allows the categorization to be more transitive. The sentence \*‘his finger joints are hurt but his *tí* is not’ is perceived as wrong, indicating a transitivity all the way from the finger joints to *tí*, but the equivalent possessive phrase ?‘my *tí* has finger joints’ sounds odd.

Figure 5 is a graphic representation of the partonomic-possessive categorization. The thin black lines spanning the entire figure are divisions between the upper/lower body and front/back, with special areas for the side of the torso and the side of the head. The waist, *kùan*, divides the upper and lower body and is therefore placed in the middle, pertaining to neither half.

Terms that are possessed by *lòh* and themselves possess other terms are written in a larger typeface inside areas with smooth gray borders. These constitute the first level of the hierarchy.

The boxes inside the gray areas contain the further levels of the hierarchy. The content of a box is always accessible to the term immediately possessing it. Beyond that, boxes with dotted borders (‘dotted boxes’) are transitive, and those with solid borders (‘solid boxes’) are intransitive.

For example, *hrmàay* is immediately possessed by *kéep* which is immediately possessed by *kmpóη*. Since both *hrmàay* and *kéep* are in transitive dotted boxes, *hrmàay* is also possessed by *kmpóη*. On the other hand, *lá hrmàay* is placed in a solid box, showing that it is possessed only by *hrmàay* and not by *kéep* nor *kmpóη*. Abbreviated heads in these figure are mainly *kh.* for *khúul* and *kr.* for *krlèey*.

The investigation of the possessive system in Kammu is somewhat obstructed by a phenomenon called *kàm kùu* ‘word pair’. Its many interesting features could fill an entire thesis, but the aspect that is most relevant for this paper is that some terms can only be possessed in pairs(!). Mentioning only one of the two (or mentioning both but in reverse order) will make the phrase sound incomplete and even ungrammatical. My informant compares it to *táam hólη háac* ‘singing without completing the rhymes’. The closest equivalent in English is idiomatic pairs such as ‘leaps and bounds’ or ‘high and dry’.

The surprising result is that *any* term is immediately possessed by *lòh* as long as it occurs in a word pair. My informant smiled at the sentence ‘a body has nails’ since it made him think of a person with nails all over his body ‘like a scaly ant-eater’, but he then added ‘finger’ to get the perfectly acceptable ‘a body has fingers, has nails’, *lòh àh crkùul àh tmmóηη*.

As an isolated word pair, one could think of this as ‘my body has fingers that have nails’, but far from all word pairs consist of such adjacent terms. In fact, the other main category of body word pairs consists of spatial or conceptual antonyms such as *kmpónh* ‘head’ ↔ *tò* ‘rump’. There are even a few pairs in which the second word is a ‘buffer word’ with no meaning of its own, e.g. *tnóh* ‘mouth’ ↔ *kñòor*.

The rest of the body part terms do not have the same need for word pairs. It is for example perfectly acceptable to say ‘a head has ears’ or ‘a foot has a heel’. Some terms do not occur in any word pair and can therefore not be possessed directly by *lòh*. These terms are underlined in figure 5.

The entailment-possessive system shows a great deal of categorization for the head and the limbs, but the torso is more scattered with many isolated terms encompassing very few other terms.

This figure also makes evident that the naming of complex terms very often reflects their categorization. If the modifier of a complex term is another body part term then that term immediately possesses the complex term. The modifier is usually omitted: *hrmàay àh lá* (?*hrmàay*) ‘the ear has a (ear) conch’.

This principle does have its exceptions. For example, fingernails are named *tmmówh tí*, but my informant sees them as possessed by the fingers rather than by *tí* (this is still in line with the discussion about the nails in 3.1.4, since the non-ambiguous *crkùul tí* is used here). Similarly, wrinkles in one’s hand, *làay tí*, are possessed by the palm, *ktáak tí*. The eyelashes, *khúul màt*, are possessed by the eyelid, *hmpúur màt*, rather than by *màt*.

### 3.2.3 Spatial categorization

Figure 6 shows the spatial relations between a subset of external body part terms, superimposed on a cartoon-like human body.

Table 14: Graphic representation of spatial relations in Figure 6

| Relation                                    | Kammu reading   | English reading  |
|---|---|--|
| $X \text{ --- } \circ \text{ --- } Y$       | $X \text{ yèt } \underline{t\grave{a}a} \text{ } Y$   | X is located on/at Y   |
| $X \text{ --- } \leftarrow \text{ --- } Y$  | $X \text{ yèt } (\underline{t\grave{a}a}) \text{ } \underline{t\acute{ı}al} \text{ } Y$   | X is located at the tip/end of Y   |
| $X \text{ --- } \rightarrow \text{ --- } Y$ | $X \text{ yèt } (\underline{t\grave{a}a}) \text{ } \underline{t\acute{ı}ut} \text{ } Y$   | X is located at the base of Y  |
| $X$<br>$\downarrow$<br>$Y$                  | $Y \text{ yèt } (\underline{t\grave{a}a}) \text{ } \underline{kntr\acute{ı}um} \text{ } X$  | Y is located below X   |
| $X$<br>$\uparrow$<br>$Y$                    | $X \text{ yèt } (\underline{t\grave{a}a}) \text{ } \underline{prw\grave{a}\theta y} \text{ } Y$   | X is located above Y<br>(if both ‘below’ and ‘above’ apply to a pair of terms, the two arrows are combined into one) |
| $Z$<br>$X \text{ --- } \text{---} Y$        | $Z \text{ yèt } (\underline{t\grave{a}a}) \text{ } \underline{tr\acute{ı}t} \text{ } X \text{ } \underline{y\lambda\lambda} \text{ } Y$ | Z is located between X and Y   |

Finally, the three terms inside the oval ‘mouth’ are expressed as located *klúan tnóh* ‘inside the mouth’.

In order not to clutter the overview more than necessary, a few relations are expressed through underlining. The underlined terms on the arm can all be expressed as being located *tàa tí*, and the underlined terms on the head as *tàa kmpóh*. The marking of *tí* at the shoulder joint is just a technicality – it is principally an encompassing term. Once again, the fingernails do not have any immediate relationship to *tí* but rather to the fingers.

### 3.2.4 Differences between the categorizations

The spatial categorization clearly shows a narrowing of *cìan* compared with the possessive categorization. The ankle can be expressed as being located between *cìan* and the calf, for example. *cìan* possesses the knee, but it is wrong to say that the knee is located on *cìan*.

The spatial system contains less hierarchical boundaries, e.g. the navel is located on the belly, but both the navel and the belly can be expressed as being located above *póh*. Also, *kàam* ‘lower back’ is located both on the waist and on the behind.

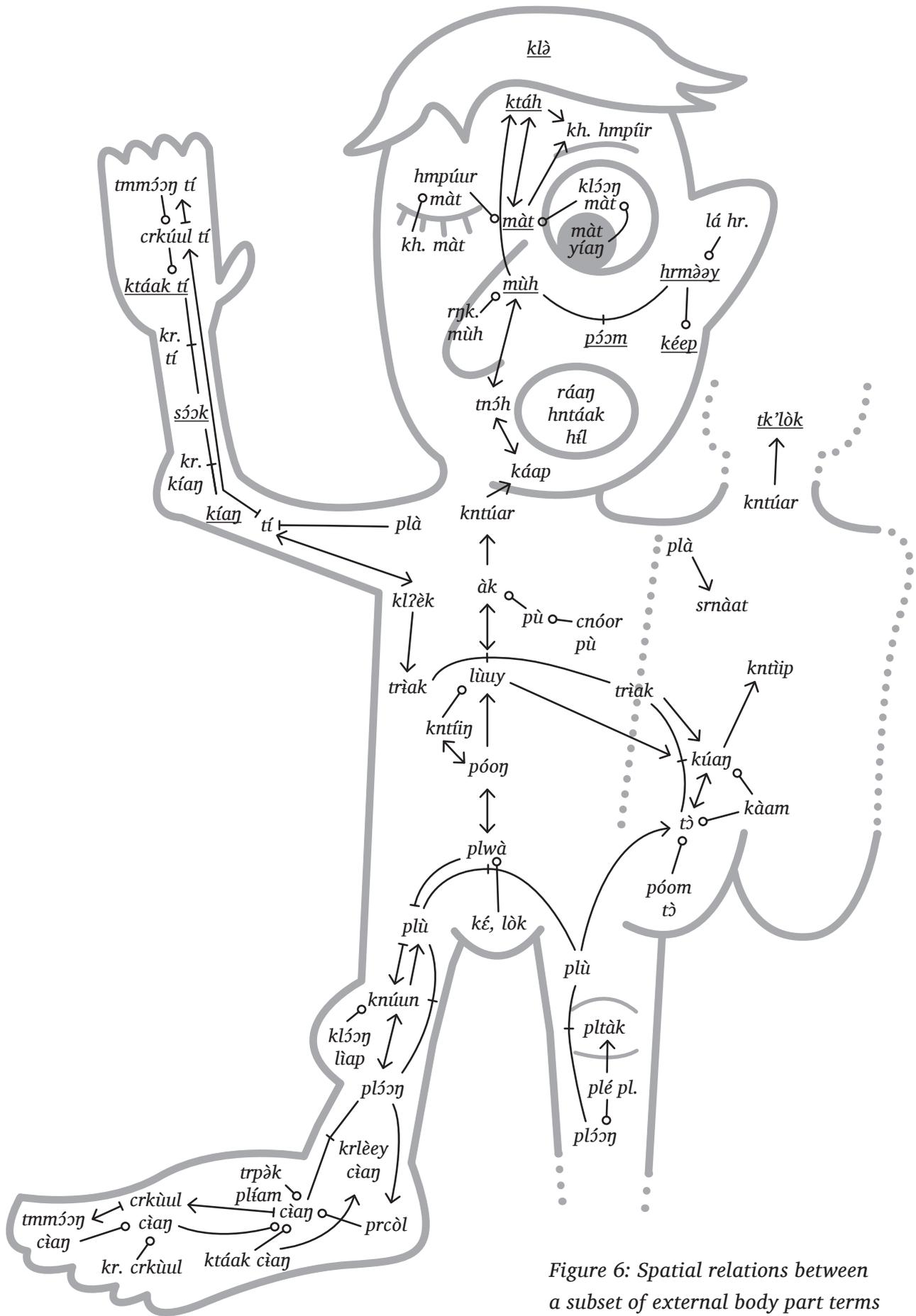


Figure 6: Spatial relations between a subset of external body part terms

### 3.2.5 Universals

With the body part terms listed and their categorization analyzed, it is now possible to see how the body part universals apply to Kammu.

a) The BODY is labeled in all body-part partonomies.

**Yes.** The term *l̄h* covers the entire body, see more under b).

b) Every language includes a term for HEAD in its lexical field of body-parts,

**Yes.** The term *kmpóη* covers the entire head.

and the term is always immediately possessed by BODY.

**Yes.** The term *kmpóη* can be expressed as possessed by *l̄h*.

Other categories which usually occur at the second level of the partonomy include TRUNK,

**No!** There is no unique term for ‘trunk’ or ‘torso’. The term *l̄h* is polysemous, meaning both ‘body’ and ‘torso’. However, it is not possible to say that *l̄h* possesses *l̄h*.

ARM (plus HAND) and LEG (plus FOOT).

**Yes.** The terms *tí* and *c̄aη*, respectively.

c) All languages label EYES, NOSE and MOUTH.

**Yes.** The terms *m̄at*, *m̄uh* and *tnóh*, respectively.

d) The ARM (plus HAND) is named by a distinct term in all languages.

**Yes.** The term *tí*.

e) The categories FINGER and TOE are always labeled (by one of four general patterns).

**Yes.** But it is unclear whether or not the Kammu system can be restricted to only one of these four patterns. The existence of both *crk̄uul tí* and *crk̄uul c̄aη* suits pattern 3: “Different terms derived from the same root”. But *crk̄uul* on its own can also mean ‘finger’, whereas the modifier *c̄aη* is always preferred for ‘toe’. This suggests pattern 4: “One basic unanalyzable term for FINGER, with TOE derived from it”. It seems that most languages following pattern 3 can use the ‘root’ term on its own to refer to a finger, so the line between the two patterns might be too arbitrary.

f) All languages name (FINGER)NAIL and (TOE)NAIL by one of two patterns. Languages with the first pattern have one basic term applied to both categories, and the second pattern have different terms derived from a common root, like English ‘fingernail’ and ‘toenail’.

**Yes.** But again the distinction between the patterns is very vague. *tmmóη* ‘nail’ can be used on its own if the context is clear, but if a distinction is important, the modifiers *tí* or *c̄aη* are added.

- g) A term for LEG implies a separate term for ARM.  
**Yes.** *cìatŋ* can cover the entire leg, and the term *tí* covers the entire arm.
- h) A term for FOOT implies a separate, non-identical term for HAND.  
**No!** There are contexts where *cìatŋ* covers the foot and nothing else, but the scope of *tí* is never narrowed in the same way.
- i) Terms for INDIVIDUAL TOES imply terms for INDIVIDUAL FINGERS.  
**Yes.** Fingers and toes have the same level of detail, with separate terms only for the thumb/big toe and little finger/little toe.

Concerning the ‘depth principle’ there is indeed no documented hierarchical chain stretching beyond six levels. The few terms that are found on this sixth level are the white and the black of the eye and the eye lashes.

### 3.3 Comparison with Jahai and Lao

The introduction to the 2006 issue of *LS* stresses that reliable semantic comparisons between languages must be made between semantic surveys following the same guidelines and not simply from comparisons between word lists (Enfield et al. 2006:138). Therefore it was fortunate that two of the *LS* articles describe languages that have different kinds of connections to Kammu.

Jahai and Kammu are distantly related and belong to two different sub-branches of the Mon-Khmer branch of the Austro-Asiatic language family. Lao, on the other hand, is a Tai-Kadai language and is unrelated to the entire Austro-Asiatic language family. Lao has however been in contact with Kammu over several centuries while Jahai has not.

This comparison is a brief survey of how Jahai and Kammu may still resemble each other and how Lao may have affected Kammu.

#### 3.3.1 Lexical similarities

Kammu has borrowed thousands of words from Lao over several centuries, but only two of these are commonly used simplex body part terms: *sɔ̀k* ‘forearm’ from Lao *sɔ̀k* and *plà* ‘shoulders’ (possibly) from Lao *ba*. Any cognates between Kammu and Jahai ultimately go back to Proto-Mon-Khmer.

Table 15: Lexical similarities between Kammu and Jahai

| Kammu      | Jahai       | English (‘Kammu; Jahai’ if the meaning differs between them) |
|------------|-------------|--|
| <i>màt</i> | <i>mit</i>  | eye  |
| <i>mùh</i> | <i>mɔ̀h</i> | nose   |

|                   |              |   |
|-------------------|--------------|---|
| <i>káap</i>       | <i>kapoʔ</i> | chin, jaw; cheek                        |
| <i>krlèey</i>     | <i>kríl</i>  | joint                                   |
| <i>kíaŋ</i>       | <i>kayõŋ</i> | upper arm; elbow                        |
| <i>cʔáaŋ</i>      | <i>jʔeŋ</i>  | bone                                    |
| <i>kmnùum</i>     | <i>knɔm</i>  | urinary bladder; urinary bladder, urine |
| <i>plù</i>        | <i>bliʔ</i>  | thigh                                   |
| <i>cíaŋ</i>       | <i>can</i>   | leg, foot; foot                         |
| <i>èec (pèec)</i> | <i>ʔec</i>   | eye residue; shit, belly, bowels        |

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In Kammu the word *èec* is synchronically unanalyzable and only occurs together with *pèec*, but its cognate *ʔec* is the most commonly used word for human residue in Jahai.

### 3.3.2 Syntactical and morphological similarities

Kammu and Jahai both use derivational affixes, but Lao is far more isolating. The definition of body part terms in Jahai is very similar to the system found in Kammu:

A Jahai [simplex] body part term generally corresponds to a single lexeme, i.e. a synchronically unanalysable minimal free form. [...] The remaining [complex] terms represent derived, polylexemic nominal compounds. These latter forms invariably consist of a left-headed construction of two nominal lexemes. (Burenhult 2006:164)

The system in Lao is very similar. Almost all simplex terms are monosyllabic, and the complex terms are mostly head-initial two-word compounds. These similarities facilitate loans from Lao to Kammu. Translation loans such as *ʔyíak màt* are replacing the much older *èec pèec* ‘eye residue’. There are also numerous constructions where the Lao loan *céey* ‘heart, mind’ and many of its belonging adjectives replace Kammu expressions that use *hrñiam*. One example of an entire phrase being loaned is *sía céey* from Lao *sia caj* lit. ‘lost heart’, meaning ‘sad, unhappy’, slowly replacing the older *cú hrñiam* ‘aching heart’.

Similar constructions with the heart are borrowed from the Tai language Thai into the syntactically similar Khmuic language Mlabri (see below) (Rischel 1995:52f).

### 3.3.3 *Categorizational similarities*

In Jahai, ‘coarse, high-level categorisation is largely absent’:

there are no terms that correspond to upper or lower part of the body, trunk, torso [...] arm and leg. [...] upper and lower limbs are segmented into six and five distinct parts respectively, each with its own simplex term label. (Burenhult 2006:169, 177)

Many more examples of this ‘almost atomistic one-to-one relationship between part and term’ are given, and the fact that body part terms seem unable to possess another term leads Burenhult to the conclusion that the Jahai body part domain ‘cannot be straightforwardly assigned a clear hierarchical structure’, and even that the domain is characterized by a ‘hierarchy avoidance’.

Any attempt to categorize the body as a partonomic hierarchy in Jahai would therefore simply consist of *ley* ‘body’ at the top level, with all other simplex and complex terms on the second level. A tentative third level could contain ‘a handful of simplex and complex terms (mainly associated with the hands and feet)’.

Enfield on the other hand finds cases of partonomy in Lao, e.g. that both the lower leg and the thigh are “truly parts of *khaa3* ‘leg’”. This is possible to claim since Lao has a word for ‘part’ and these words can be expressed as ‘part of *khaa3*’.

Both ‘lower leg’ and ‘thigh’ are also complex terms with *khaa3* ‘leg’ as their modifier, supporting the idea that the modifier of complex terms shows something about their hierarchical position. Further support comes from the Jahai terms found on the extremities. These are all simplex, and none of them can be expressed as ‘part of’ the arm or even possessed by it.

In other cases, Lao body parts terms are better described as being ‘located on’ or ‘attached to’ each other. Because of these many coexisting systems, Enfield presents no single categorizational system, but examples in his article allows the reader to deduce a partonomy with at least three levels: body → leg → thigh (Enfield 2006b:197f).

Enfield’s article contains further details and discussions that have direct equivalents in Kammu, but not in Jahai:

- ▶ All bodily fluids except blood are complex terms with the word for ‘liquid’ as their head.

- ▶ Most other bodily emissions are complex terms with the word for ‘shit, residue’ as their head.
- ▶ ‘Nail’ is the head of complex terms modified by ‘hand, arm’ or ‘foot, leg’ and not by the polysemous ‘digit’. Lao specifies other positions more than Kammu does, the term for ‘knuckle’ is literally ‘hand digit joint’.
- ▶ Hair on top of the head is a simplex term different from the term used in complex terms for facial and bodily hair.

### 3.3.4 A final observation from a closely related language

In most Mon-Khmer languages the word for ‘foot’ and/or ‘leg’ is a cognate to *c̣ịaŋ*, but in dictionaries it is usually listed simply as ‘foot, leg’ without any further information about the semantic differences.

However, in the late Jørgen Rischel’s monograph about the Khmuic language Minor Mlabri (1995) the dictionary entry for ‘leg’ contains no translation but instead three redirections, suggesting that there is no encompassing term:

leg *see* foot, lower leg, thigh

Two of these words have cognates in Kammu: *ʃʌŋŋ* ‘foot’ and *bluuʔ* ‘thigh’. What makes this detail even more interesting is that the only compound mentioned under *ʃʌŋŋ* in the Mlabri–English dictionary is *ʔat ʃʌŋŋ chuur.ʔbat* ‘the legs of a pair of trousers’! This use of *ʃʌŋŋ* conflicts with the information in the English–Mlabri word list entry, but is similar to the uses of *c̣ịaŋ* in Kammu.

Since Kammu and Mlabri are not written languages, it is practically impossible to determine if the scopes of *ʃʌŋŋ* and *c̣ịaŋ* have expanded or narrowed over a longer period of time.

## 4 Summary

This paper is the first systematic study of the body part domain in the Kammu language. It lists well over 200 simplex and complex terms and verbs.

A further study of the relations between these body part terms revealed a hierarchical possessive system similar to the partonomic system proposed in earlier literature. Since Kammu has no word for '(body) part' it is not possible to prove that this system is a partonomy, but it is at the same time not unreasonable to suggest it.

This paper also described a spatial system in which body part terms relate to each other through prepositions. This supports later claims that several systems of relations usually coexist.

The modifier in complex body part terms often reflects the term's position both in the possessive and the spatial system. The inconsistencies that do exist show that modifiers can convey semantic information other than 'hierarchical subordination'. A hierarchy cannot be deduced solely from a word list but requires an investigation of its own.

Kammu adheres to most of the posited body part domain universals. One of the more unusual deviations is that the leg can be divided with more detail than the arm. There are, in other words, situations where the term that usually covers the entire leg only covers the foot, but the term for the arm never shrinks its scope to cover only the hand.

The paper finally compared Kammu to the distantly related Mon-Khmer language Jahai as well as to the unrelated Tai-Kadai language Lao. The latter language has affected Kammu and in some ways its body part domain. There are a few old loans, but the number of colloquially used loans has increased over the last 30 years. The syntactical similarity between Kammu and Lao facilitates both translation loans and lexical loans, sometimes entire phrases.

A future study might investigate in what aspects and to what degree the ever-increasing Lao influence further has changed the Kammu body part domain over the last 30 years.

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