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12 Body part locatives

Locative phrases can consist of a noun of reference followed by a body part functioning as a locative, which in this thesis is called a ‘body part locative’. Body part locatives are analyzed categorically as locatives in that the original body part noun has become a grammaticalized form which no longer refers to person. In 5.2.4, it was shown that the vowels of inherently possessed body part nouns correspond to the person possessing the nouns. Such body parts used as locatives may have generalized first or second person vowels when used for the location of third person nouns.

- (1) ē àn ũfũ ʒʒl dēēnē.
 3sN staying tree up only
 ‘ . . as he remained in the tree.’ (Nyee35)

In (1), ʒʒl ‘up’ is a body part locative with the same segmental form as ʒʒl ‘your head (2sPs)’. The noun ʒʒl ‘your head’ is a second person singular inherently possessed singular body part requiring a person marker vowel. In contrast, the locative ʒʒl ‘up’ is used with the third singular noun ũfũ ‘tree’, and the vowel ə no longer refers to person. In this way, the body part has become grammaticalized as a locative rather than as a body part. The second person vowel of the locative form ʒʒl ‘up’ is random in that other body part locatives use first person or third person vowels.

As will be discussed in 14.9.3, possession of body part nouns is different than for other nouns in that the possessor precedes the body part (*ʒēn lúɖ* ‘person’s leg’) instead of following and in the genitive case (*gàdǎǎê é ʒēn* ‘basket of person.GEN’). The construction of locative phrases with body part locatives resembles that of possessed body parts—the body part follows the possessor and the body part locative follows the noun of reference. However, since ʒʒl ‘up’ and other singular body part locatives can describe the location of any singular person noun or pronoun, the locative is a grammaticalized form which no longer refers to any person.

In (2), body part nouns and the corresponding body part locatives are listed in both singular and plural forms along with their meanings. All body part locatives have the same segmental form as the corresponding body part noun; however, locatives (a-c) which are inherently possessed body parts have different tone than the corresponding body part nouns. Locatives which are inherently possessed body parts include a person marker vowel only because the body part cannot occur without one. The person marker vowel does not represent any person in its locative usage unless the prepositional prefix *ɖ-* is attached, as discussed shortly. As to which of the three vowel-person forms the grammaticalized body part employs, appears random. The locative of (a) uses the third person vowel, the locative of (b)

uses the second person vowel, and the locative of (c) can use either the first or third person vowel in singular locative form, but only the first person vowel in plural form.

(2) **Body parts and corresponding body part locatives**

	Noun	Noun		LOC	LOC	
	SG	PL		SG	PL	
(a)	ēēlg	ìil-g	‘stomach.3P’	éélg	îilg	‘in, inside of’
(b)	ṣṣl	ùùl-g	‘head.2P’	óól	úùlg	‘above, over, on’
(c)	āāp/	ààp-g/	‘back.1P/	ááp/	ôôp	‘behind, in back of’
	ēēp	ìip-g	back.3P’	éép		
(d)	bāl	bàl-g	‘vagina’	bāl	bàlg	‘under, beneath’
(e)	mūū	mùù-gg	‘face’	mūū	mùùgg	‘before, in front of’
(g)	bēp-ɟ	bēp-āāgg	‘side’	bēpɟ	bēpāāgg	‘next to, beside’

In each example of (3), a body part locative follows the noun of reference. The body part locative agrees in number with the head noun—plural in (a) and singular in (b-d).

(3) **Body part locatives**

- (a) ú = níl gār = ā súùgg **îilg** é gārā fěđáná jègg = ā
 2pN = know place = DEF market in where placed things = DEF
 ‘Do you know the place in the market where things . . .’ (Fand27)

- (b) ē máà īīŋ ē àn mōsōr **ṣṣl**
 3sN prides 3sR 3sN stay horse up
 ‘. . . taking pride in himself as he sits up on the horse.’ (Minj14)

- (c) fāā ná bēl còđɣđđ.-ēēn, ē àn gōi **bāl**
 old REL.SG called Joojo-3sO 3sN staying tree.type beneath
 ‘An old man named Joojo was sitting under a Gai tree.’ (Jooj3)

- (d) ē rāgg fól **mūū**
 3sN stop hole front
 ‘He stopped in front of the hole.’ (Goat17-18)

When body part locatives are used with pronouns of reference instead of nouns of reference, the object pronoun is attached to the verb and the prepositional prefix *ɟ-* ‘to’ attaches to the body part locative, as will be discussed in 11.4. Body part locatives with pronominal reference are also called locative prepositional pronouns, as discussed in 5.7.

In (4), the third singular object pronoun =*ɪ* attaches to the verb. The prepositional prefix *ɟ-* marks the body part locative as indicating a pronoun as well as a location,

and thus the vowel *εε* indicates the third person singular pronoun (*ɔ̄-ε̄ε̄n* ‘to behind him’).

- (4) *ālɔ̄ = á ē pârɔ̄ = ì ɔ̄-ε̄ε̄n*
 fox = DEF 3sN jump = 3sAM PP-behind.3sO
 ‘Fox jumped behind him.’ (Goat12)

If instead the meaning were ‘Fox jumped behind (over) you’, the construction *ɔ̄-ɔ̄ɔ̄n* (PP-behind.2sO; locative prepositional pronoun) would have been used. If the meaning were ‘Fox jumped on his back’ the construction *ɔ̄-ε̄ε̄n* (PP-back.3sPs; possessed body part) with Low tone would have been used [see also (6d) of 11.4]. If the meaning were ‘Fox jumped behind the tree’, the construction *pârɔ̄ɔ̄ ũfú ε̄ε̄n* (jump tree behind; body part locative) would have been used.

Locative phrases are adjuncts of the verb and are equivalent in function to adverbs of place such as *te* ‘there, here’ discussed in 13.3. However, since locative phrases have a different construction than adverbs of place, they are analyzed as separate lexical categories.

Although body part locatives are analyzed as separate morphemes, the initial vowels of some body part locatives are sometimes elided, undergo [ATR] changes, and undergo tone changes similar to those of clitics, depending on the nouns they follow. A summary of these changes is given here with reference to the list of (5), and examples follow in the next sections. Elision and [ATR] changes only occur in the singular body part locative of (5a) and to a lesser extent in the singular locatives of (b-c). The changes mostly depend on the speed of the utterance, but also on the final segments of the nouns the locatives follow. Tonal changes in body part locatives nearly always take place, regardless of the speed of utterance. However, there are no tonal changes for the singular locative of (g) and the plural locatives of (d-g) with underlying initial Low tone. The examples that follow represent fast speech and demonstrate the most possible changes.

(5) **Body part locatives**

	LOC SG	LOC PL	
(a)	<i>é̄élg</i>	<i>ûlg</i>	‘in, inside of’
(b)	<i>ɔ̄ɔ̄l</i>	<i>úùlg</i>	‘above, over, on’
(c)	<i>ááɲ/é̄ε̄n</i>	<i>ɔ̄ɔ̄ng</i>	‘behind, in back of’
(d)	<i>b̄ɔ̄l</i>	<i>b̄ɔ̄lg</i>	‘under, beneath’
(e)	<i>m̄ūū</i>	<i>m̄ùùgg</i>	‘before, in front of’
(g)	<i>b̄ε̄ɲ</i>	<i>b̄ε̄ɲāagg</i>	‘next to, beside’

12.1 Segmental formation of body part locatives

The body part locatives *é̄élg* ‘in’ and *ɔ̄ɔ̄l* ‘above’ attach to singular nouns with

stem-final approximant *ɔ̃*, evidenced by the vowel quality change of the locative vowel in (6b) and (d). However, the body part locative *ááɲ/ééɲ* ‘behind’ is separate from singular nouns as vowel quality of the locative never changes.

(6) **Singular body part locatives *éélg* ‘in’, *ɔɔl* ‘above’, *ááɲ/ééɲ* ‘behind’ on singular nouns with stem-final *ɔ̃***

	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
(a)	jááɔ̃	jááɔ̃ = éélg	jááɔ̃ = ɔɔl	jááɔ̃ ááɲ	jááɔ̃ ééɲ ‘old clothes’
(b)	mɔ̃ɔ̃ɔ̃	mɔ̃ɔ̃ɔ̃ = ílɲ	mɔ̃ɔ̃ɔ̃ = úúl	mɔ̃ɔ̃ɔ̃ ááɲ	mɔ̃ɔ̃ɔ̃ ééɲ ‘grandfather’
(c)	mēēɔ̃	mēēɔ̃ = éélg	mēēɔ̃ = ɔɔl	mēēɔ̃ ááɲ	mēēɔ̃ ééɲ ‘tree type’
(d)	kūūɔ̃	kūūɔ̃ = ílɲ	kūūɔ̃ = úúl	kūūɔ̃ ááɲ	kūūɔ̃ ééɲ ‘shadow’
(e)	yààɔ̃	yààɔ̃ = ēēlg	yààɔ̃ = ɔɔl	yààɔ̃ āāɲ	yààɔ̃ ēēɲ ‘sister’

Body part locatives attached to monosyllabic underlying approximant-final stems are shown in (7). In (a-e), the singular body part locatives either cause the underlying-final approximant to surface as such or elide the approximant. The vowel of the locatives *éélg* ‘in’ and *ɔɔl* ‘above’ take the [ATR] quality of the noun to which they attach. However, the body part locative *ááɲ/ééɲ* ‘behind’ is separate from singular nouns as vowel quality of the locative does not change in (f-h).

(7) **Singular body part locatives *éélg* ‘in’, *ɔɔl* ‘above’, *ááɲ/ééɲ* ‘behind’ on monosyllabic underlying approximant-final stems**

	Stem-final	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
(a)	aw /aw/	káɔ̃	káw = ēēlg	ká. = ɔɔl	káw āāɲ	‘hyena’
(b)	aaw /aaw/	bààɔ̃	bààw = ēēlg	bàà. = ɔɔl	bààw āāɲ	‘father’
(c)	ew /ɛw/	bēɔ̃	bēw = ēēlg	bē. = ɔɔl	bēw āāɲ	‘tree type’
(d)	ay /ay/	tāɔ̃	tā. = ēēlg	tā = ɔɔl	tāy āāɲ	‘giraffe’
(e)	aay /aay/	sāāɔ̃	sāā = éélg	sāā. = ɔɔl	sāāy ááɲ	‘coconut’
(f)	əɔ̃i /əɔ̃y/	mààɔ̃	màà.í = ílg	mààɔ̃. = ūúl	mààɔ̃ āāɲ	‘farm fence’
(g)	ui /uy/	mūī	mū.í = ílg	mūī. = úúl	mūī ááɲ	‘wildebeest’
(h)	uui /uuy/	ɲūūɔ̃	ɲūū. = ílg	ɲūūɔ̃. = ūúl	ɲūūī āāɲ	‘leopard’

Similarly, in monosyllabic long vowel-final stems, the vowel of the locatives *éélg* ‘in’ and *ɔɔl* ‘above’ take the [ATR] quality of the noun to which they attach, but *ááɲ/ééɲ* ‘behind’ is separate.

(8) **Singular body part locatives *éélg* ‘in’, *ɔɔl* ‘above’, *ááɲ/ééɲ* ‘behind’ on monosyllabic long vowel-final stems**

	Stem-final	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
ɛ	rēē	rēē. = éélg	rēē. = ɔɔl	rēē ááɲ	rēē ééɲ	‘cotton’
a	māā	māā. = ēēlg	māā. = ɔɔl	māā āāɲ	māā ēēɲ	‘house’
ɔ̃	tɔ́ɔ́	tɔ́ɔ́. = éélg	tɔ́ɔ́. = ɔɔl	tɔ́ɔ́ ááɲ	tɔ́ɔ́ ééɲ	‘cow’

Stem-final	N SG	N SG 'in'	N SG 'above'	N SG 'behind'		
i	jĩ	jĩ. = iĩlg	jĩ. = ũũl	jĩ āāɲ	jĩ ēēɲ	'turkey'
ə	wṵṵ	wṵṵ. = íĩlg	wṵṵ. = úúł	wṵṵ ááɲ	wṵṵ ēēɲ	'shade'
u	bùù	bùù. = iĩlg	bùù. = ũũl	bùù āāɲ	bùù ēēɲ	'chicken coop roof'

The body part locative *éélǵ* 'in' can attach to polysyllabic singular nouns with stem-final vowel. Following some nouns with final long vowel such as in (9a,c), the initial long vowel of the locative is elided. With other nouns such as (b) there can be partial elision. There can also be elision of noun short-final vowels as in (g,i,j). In (d,f,h,k), the locative is separate, evidenced by the vowel quality of the locative not changing to [+ATR]. In (e), it is ambiguous whether the locative attaches or not. The locative *śśl* 'above' attaches to vowel-final stems to a lesser extent than *éélǵ*—in these examples it is only attached in (j). The locative *ááɲ/éēɲ* 'behind' is always separate.

(9) **Singular body part locatives *éélǵ* 'in', *śśl* 'above', *ááɲ/éēɲ* 'behind' on polysyllabic vowel-final stems**

	Stem-final	N SG	N SG 'in'	N SG 'above'	N SG 'behind'	
(a)	εε	ābbéé	ābbéé = lg	ābbéé śśl	ābbéé ááɲ	'uncle'
(b)	ii	ūrīī	ūrī.í = ílg	ūrīī śśl	ūrīī ááɲ	'ostrich'
(c)	aa	wááyáá	wááyáá = lg	wááyáá śśl	wááyáá ááɲ	'bird type'
(d)	əə	gṵũłḍḍə	gṵũłḍḍə ēēlg	gṵũłḍḍə ṵṵl	gṵũłḍḍə āāɲ	'fish'
(e)	ɔɔ	mélṵṵ	mélṵṵ éēlg	mélṵṵ śśl	mélṵṵ ááɲ	'sugar cane'
(f)	uu	əyúú	əyúú éēlg	əyúú śśl	əyúú ááɲ	'tooth brush'
(g)	a	ṭááḍḍà	ṭááḍ = ēēlg	ṭááḍḍà ṵṵl	ṭááḍḍà āāɲ	'grandmother'
(h)	ə	əɲḍ	əɲḍ ēēlg	əɲḍ ṵṵl	əɲḍ āāɲ	'little girl'
(i)	ɔ	ḍnsḍ	ḍns = ēēlg	ḍnsḍ ṵṵl	ḍnsḍ āāɲ	'cooking plate'
(j)	u	kúúfú	kúúf = ílg	kúúf = úúł	kúúfú ááɲ	'crushed beans'
(k)	uə	būḍ	būḍ ēēlg	būḍ ṵṵl	būḍ āāɲ	'tree type'

The body part locative *éélǵ* 'in' can attach to singular nouns with stem-final consonants evidenced by [ATR] harmony, but the other vowel-initial singular locatives remain separate.

(10) **Singular body part locatives *éélg* ‘in’, *óól* ‘above’, *ááp/één* ‘behind’ on singular nouns with stem-final consonants**

	Stem-final	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
(a)	bb	jílàbb	jílàbb = iíl	jílàbb óól	jílàbb ááp	‘water spring’
(b)	ḍ	māāḍ	māāḍ = éélg	māāḍ óól	māāḍ ááp	‘snake type’
(c)	d	dóḍ	dóḍ = éélg	dóḍ óól	dóḍ ááp	‘bird type’
(d)	ḡ	bìmiríḡ	bìmiríḡ = iíl	bìmiríḡ óól	bìmiríḡ ááp	‘bird type’
(e)	gg	kàmàlògg	kàmàlògg = ēēlg	kàmàlògg óól	kàmàlògg ááp	‘woman’
(f)	s	márōōs	márōōs = éélg	márōōs óól	márōōs ááp	‘spider’
(g)	m	ḍōm	ḍōm = iíl	ḍōm óól	ḍōm ááp	‘Arab’
(h)	n	sēēn	sēēn = ēēlg	sēēn óól	sēēn ááp	‘ruler’
(i)	ḡ	ḡéēḡ	ḡéēḡ = ēēlg	ḡéēḡ óól	ḡéēḡ ááp	‘spear type’
(j)	r	púr	púr = iíl	púr óól	púr ááp	‘flower’
(k)	l	ḍòḡḍl	ḍòḡḍl = ēēlg	ḍòḡḍl óól	ḍòḡḍl ááp	‘millipede’

Regardless of the stem-final segments, the plural body part locatives *îlg* ‘in’, *úùlg* ‘above’, and *ééng* ‘behind’ of (6-10) do not undergo changes and are thus analyzed as separate words from the preceding plural nouns. Singular locatives are also presented for comparison.

(11) **Body part locative *éélg* ‘in’ and *îlg* ‘in’ on various segment-final singular and plural nouns**

Suffix	N SG	N PL	N SG ‘in’	N PL ‘in’	
-gg	wáár	wáār-g	wáár éélg	wáār-g îlg	‘insect’
-gg	wááyáá	wááyáá-gg	wááyáá-lg	wááyáá-gg îlg	‘bird’
-gg	kúúfú	kúúfú-gg	kúúfú-îlg	kúúfú-gg îlg	‘beans’
-Āgg	célḍ	célḍ-āgg	célḍ éélg	célḍ-āg îlg	‘broom’
-ÉĒgg	púr	púr-îigg	púr-îîlg	púr-îigg îlg	‘flower’
-ĀAgg	îl	îl-ààgg	îl ēēlg	îl-ààgg îlg	‘horn’
-ĀĀḍ	kàmàlògg	kàmàlògg-ààḍ	kàmàlògg ēēlg	kàmàlògg-ààḍ îlg	‘woman’
-ḍ	ābbéé	ābbéé-ḍ	ābbéé-lg	ābbéé-ḍ îlg	‘uncle’
-ḍ/-gg	gèrmù-ḍ	gèrmù-gg	gèrmù-ḍ ēēlg	gèrmù-gg îlg	‘insect’
-Ed/-gg	jíḡ-íḍ	jíḡ-g	jíḡ-íḍ-îîlg	jíḡ-g îlg	‘louse’

(12) **Body part locative ʒɔl ‘above’ and uɪlg ‘above’****on various segment-final singular and plural nouns**

Suffix	N SG	N PL	N SG ‘above’	N PL ‘above’	
-gg	wáár	wáār-g	wáár ʒɔl	wáār-g uɪlg	‘insect’
-gg	wááyáá	wááyáá-gg	wááyáá ʒɔl	wááyáá-gg uɪlg	‘bird’
-gg	kúúfú	kúúfú-gg	kúúf = úúl	kúúfú-gg uɪlg	‘beans’
-Āgg	célɔ	célɔ-āgg	célɔ ʒɔl	célɔ-āgg uɪlg	‘broom’
-ÉĒgg	púr	púr-īgg	púr ʒɔl	púr-īgg uɪlg	‘flower’
-ĀAgg	íl	íl-àəgg	íl ʒɔl	íl-àəgg uɪlg	‘horn’
-ĀAɔ	kàmàləgg	kàmàləgg-àəɔ	kàmàləgg	kàmàləgg-àəɔ	‘woman’
-ɔ	ābbéé	ābbéé-ɔ	ābbéé ʒɔl	ābbéé-ɔ uɪlg	‘uncle’
-ɔ/-gg	gərmù-ɔ	gərmù-gg	gərmù-ɔ ʒɔl	gərmù-gg uɪlg	‘insect’
-Eɔ/-gg	jín-íɔ	jín-g	jín-íɔ ʒɔl	jín-g uɪlg	‘louse’

(13) **Body part locative ááɪ/ééɪ ‘behind’ and ɔəng ‘behind’****on various final segments of singular and plural nouns**

Suffix	N SG	N PL	N SG ‘behind’	N PL ‘behind’	
-gg	wáár	wáār-g	wáár ááɪ	wáār-g ɔəng	‘insect’
-gg	wááyáá	wááyáá-gg	wááyáá ááɪ	wááyáá-gg ɔəng	‘bird’
-gg	kúúfú	kúúfú-gg	kúúfú ááɪ	kúúfú-gg ɔəng	‘beans’
-Āgg	célɔ	célɔ-āgg	célɔ ááɪ	célɔ-āg ɔəng	‘broom’
-ÉĒgg	púr	púr-īgg	púr ááɪ	púr-īgg ɔəng	‘flower’
-ĀAgg	íl	íl-àəgg	íl āāɪ	íl-àəgg ɔəng	‘horn’
-ĀAɔ	kàmàləgg	kàmàləgg-àəɔ	kàmàləgg āāɪ	kàmàləgg-àəɔ	‘woman’
-ɔ	ābbéé	ābbéé-ɔ	ābbéé ááɪ	ābbéé-ɔ ɔəng	‘uncle’
-ɔ/-gg	gərmù-ɔ	gərmù-gg	gərmù-ɔ āāɪ	gərmù-gg ɔəng	‘insect’
-Eɔ/-gg	jín-íɔ	jín-g	jín-íɔ ááɪ	jín-g ɔəng	‘louse’

12.2 Tonal formation of body part locatives

The singular body part locatives *éélg* ‘in’, *ʒɔl* ‘above’, *ááɪ/ééɪ* ‘behind’ have underlying High tone and the plural body part locatives *uɪlg* ‘in’, *uɪlg* ‘above’, *ɔəng* ‘behind’ have underlying HL tone. Regardless of whether the locatives attach to nouns, initial High tone of the locative is lowered to Mid following noun-final Low tone, as shown by (14-19).

(14) **Singular body part locatives éélg ‘in’, ʒɔl ‘above’, ááɪ/ééɪ ‘behind’****on stem-final ɔ nouns with three tone melodies**

Tone	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
H	jááɔ	jááɔ = éélg	jááɔ = ʒɔl	jááɔ ááɪ	‘old clothes’
M	məɔɔ	məɔɔ = ílg	məɔɔ = úúl	məɔɔ ááɪ	‘grandfather’
L	yààɔ	yààɔ = ēélg	yààɔ = ʒɔl	yààɔ āāɪ	‘sister’

(15) **Singular body part locatives *éélǵ* ‘in’, *śól* ‘above’, *ááǵ/ééǵ* ‘behind’ on monosyllabic approximant-final stems with various tone melodies**

Tone	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
H	ááé	áá.é = élg	áá. = śólǵ	ááy = ááǵ	‘honey’
M	mūī	mū.í = ílg	mūī. = úúl	mūī ááǵ	‘wildebeest’
L	bààð	bààw = ēēlg	bàà. = śśl	bààw = āāǵ	‘father’
HL	káð	kâw = ēēlg	kâ. = śśl	kâw = āāǵ	‘hyena’
ML	ɲūūì	ɲūū. = īīlg	ɲūūì. = ūūl	ɲūūì āāǵ	‘leopard’

(16) **Singular body part locatives *éélǵ* ‘in’, *śól* ‘above’, *ááǵ/ééǵ* ‘behind’ on monosyllabic long vowel-final stems with various tone melodies**

Tone	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
H	cáá	cáá. = éélg	cáá. = śśl	cáá ááǵ	‘wild cat’
M	mīī	mīī. = íílg	mīī. = úúl	mīī ááǵ	‘goat’
L	ɖīì	ɖīì. = īīlg	ɖīì. = ūūl	ɖīì āāǵ	‘rat’
HL	máà	máà. = ēēlg	máà. = śśl	máà āāǵ	‘house’
ML	ɟīī	ɟīī. = īīlg	ɟīī. = ūūl	ɟīī āāǵ	‘turkey’

(17) **Singular body part locatives *éélǵ* ‘in’, *śól* ‘above’, *ááǵ/ééǵ* ‘behind’ on polysyllabic vowel-final nouns with various tone melodies**

Tone	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
H	áðá	áð. = éélg	áð. = śśl	áðá ááǵ	‘dog’
M	ūrīī	ūrī.í = ílg	ūrīī śśl	ūrīī ááǵ	‘ostrich’
L	ðnsð	ðns = ēēlg	ðnsð śśl	ðnsð āāǵ	‘cooking plate’
HL	báɖà	báɖ. = ēēlg	báɖà śśl	báɖà āāǵ	‘gourd cup’
ML	gāfà	gāf. = ēēlg	gāfà śśl	gāfà āāǵ	‘farm, field’
MH	mððó	mðð. = éélg	mððó śśl	mððó ááǵ	‘locust’

(18) **Singular body part locatives *éélǵ* ‘in’, *śól* ‘above’, *ááǵ/ééǵ* ‘behind’ on consonant-final nouns with various tone melodies**

Tone	N SG	N SG ‘in’	N SG ‘above’	N SG ‘behind’	
H	wáár	wáár. = éélg	wáár śśl	wáár ááǵ	‘insect type’
M	ɖēm	ɖēm. = íílg	ɖēm śśl	ɖēm ááǵ	‘Arab’
L	kààm	kààm. = ēēlg	kààm śśl	kààm āāǵ	‘cow type’
HL	séèn	séèn. = ēēlg	séèn śśl	séèn āāǵ	‘ruler’
HM	ǵórgāāl	ǵórgāāl. = éélg	ǵórgāāl śśl	ǵórgāāl ááǵ	‘bird type’
ML	kððèl	kððèl. = ēēlg	kððèl śśl	kððèl āāǵ	‘baboon’
LH	àggáár	àggáár. = éélg	àggáár śśl	àggáár ááǵ	‘hunter, rider’
LM	gðèn	gðèn. = éélg	gðèn śśl	gðèn ááǵ	‘metal worker’
MH	bāár	bāár. = éélg	bāár śśl	bāár ááǵ	‘tribe member’

(19) **Plural body part locatives *îlg* ‘in’, *ûûlg* ‘above’, *ṣṣṅg* ‘behind’
on nouns with various tone melodies**

Tone	N PL	N PL ‘in’	N PL ‘above’	N PL ‘behind’	
H	wáār-g	wáār-g îlg	wáār-g ûûlg	wáār-g ṣṣṅg	‘insect type’
M	ḍṣm-g	ḍṣm-g îlg	ḍṣm-g ûûlg	ḍṣm-g ṣṣṅg	‘Arab’
L	kààm-g	kààm-g îlg	kààm-g ûûlg	kààm-g ṣṣṅg	‘cow type’
HL	séèn-g	séèn-g îlg	séèn-g ûûlg	séèn-g ṣṣṅg	‘ruler’
HM	jǒrgāāl-g	jǒrgāāl-g îlg	jǒrgāāl-g ûûlg	jǒrgāāl-g ṣṣṅg	‘bird type’
ML	kṣḍḍèl-g	kṣḍḍèl-g îlg	kṣḍḍèl-g ûûlg	kṣḍḍèl-g ṣṣṅg	‘baboon’
LH	àggáār-g	àggáār-g îlg	àggáār-g ûûlg	àggáār-g ṣṣṅg	‘hunter, rider’
LM	gḍḍēn-g	gḍḍēn-g îlg	gḍḍēn-g ûûlg	gḍḍēn-g ṣṣṅg	‘metal worker’
MH	bāār-g	bāār-g îlg	bāār-g ûûlg	bāār-g ṣṣṅg	‘tribe member’

The singular body part locatives *bāl* ‘under’ and *mūū* ‘in front of’ have underlying Mid tone which assimilates to final Low tone of a preceding noun. The locative *bēṅṅ* ‘beside’ has underlying Low tone which is not affected by any tone.

(20) **Singular body part locatives *bāl* ‘under’, *mūū* ‘in front of’, *bēṅṅ* ‘beside’
on consonant-final nouns with various tone melodies**

Tone	N SG	N SG ‘under’	N SG ‘in front of’	N SG ‘beside’	
H	wáár	wáár bāl	wáár mūū	wáár bēṅṅ	‘insect type’
M	ḍṣm	ḍṣm bāl	ḍṣm mūū	ḍṣm bēṅṅ	‘Arab’
L	kààm	kààm bāl	kààm mūū	kààm bēṅṅ	‘cow type’
HL	séèn	séèn bāl	séèn mūū	séèn bēṅṅ	‘ruler’
HM	jǒrgāāl	jǒrgāāl bāl	jǒrgāāl mūū	jǒrgāāl bēṅṅ	‘bird type’
ML	kṣḍḍèl	kṣḍḍèl bāl	kṣḍḍèl mūū	kṣḍḍèl bēṅṅ	‘baboon’
LH	àggáár	àggáár bāl	àggáár mūū	àggáár bēṅṅ	‘hunter, rider’
LM	gḍḍēn	gḍḍēn bāl	gḍḍēn mūū	gḍḍēn bēṅṅ	‘metal worker’
MH	bāár	bāár bāl	bāár mūū	bāár bēṅṅ	‘tribe member’

The plural body part locatives *bàlg* ‘under’, *mùùgg* ‘in front of’, *bēṅṅāagg* ‘beside’ also have initial Low tone which is not affected by any tone.

(21) **Plural body part locatives *bàlg* ‘under’, *mùùgg* ‘in front of’, *bēṅṅāagg* ‘beside’
on nouns with various tone melodies**

Tone	N PL	N PL ‘under’	N PL ‘in front of’	N PL ‘beside’	
H	wáār-g	wáār-g bàlg	wáār-g mùùgg	wáār-g bēṅṅāagg	‘insect’
M	ḍṣm-g	ḍṣm-g bàlg	ḍṣm-g mùùgg	ḍṣm-g bēṅṅāagg	‘Arab’
L	kààm-g	kààm-g bàlg	kààm-g mùùgg	kààm-g bēṅṅāagg	‘cow’
HL	séèn-g	séèn-g bàlg	séèn-g mùùgg	séèn-g bēṅṅāagg	‘ruler’
HM	jǒrgāāl-g	jǒrgāāl-g bàlg	jǒrgāāl-g mùùgg	jǒrgāāl-g bēṅṅāagg	‘bird’

Tone	N PL	N PL 'under'	N PL 'in front of'	N PL 'beside'	
ML	kɔ̃ðɛ̀l-g	kɔ̃ðɛ̀l-g bəl̩g	kɔ̃ðɛ̀l-g mùùgg	kɔ̃ðɛ̀l-g beɲāāgg	'baboon'
LH	àggáār-g	àggáār-g bəl̩g	àggáār-g mùùgg	àggáār-g beɲāāgg	'hunter'
LM	gðēn-g	gðēn-g bəl̩g	gðēn-g mùùgg	gðēn-g beɲāāgg	'metal worker'
MH	bāār-g	bāār-g bəl̩g	bāār-g mùùgg	bāār-g beɲāāgg	'tribe m.'