

#Hoan Body Part Terminology in Comparative Perspective

Bonny Sands¹ & Henry Honken

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1. Introduction

The genealogical relationship of the #Hoan language to the Ju languages (in a newly labelled Kx'a family) has been recently demonstrated (e.g. Heine & Honken 2010). In this paper, we support this relationship with additional etymologies which have been identified through comparison with approximately 300 #Hoan lexical items documented in Botswana in October 2010 by Sands et al. (2010). Further, we discuss the areal relationships apparent in the #Hoan lexicon, following Traill's (1973) observation that the proportion of #Hoan cognates with other "Khoisan" languages is "50% Northern, 33% Southern and 17% Central". Body part terminology is often considered to be an area of the lexicon which is relatively resistant to borrowing, yet we still find high percentages of body part terms which are apparently cognate with unrelated languages such as !Xóǀ and G|ui. These findings underscore the danger inherent in a language classification which relies primarily on lexical data alone.

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¹ Northern Arizona University

Please direct correspondence to: Bonny.Sands@nau.edu, sands@lowell.edu, or to henryhonken@centurylink.net

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2. #Hoan Linguistic Environment

The #Hoan data cited here comes from Sands et al. (2010), and is based on the speech of two speakers from Tshwaane and four from Dutlwe, Botswana. The three oldest are fluent in |Gui and Shekgalagari as well as #Hoan, but the three youngest only have a passive knowledge of |Gui. None of the speakers claimed any ability in !Xóǀ (cf. Sands et al. (2011b) for further information on the backgrounds of the #Hoan speakers).

Dutlwe	Kgalagari, !Xóǀ, G wi
Lotse	!Xóǀ
Khudumelapye	Kgalagari, G wi, Kua, #Hua
Lethakeng	Kgalagari, Tswana, G wi, Kua, #Hua
Maboane	Kgalagari, G wi
Magagarape	Kgalagari, G wi
Motokwe	Kgalagari, G wi
Khekhenye	G wi, !Xóǀ
Salajwe	Kgalagari, G wi, Kua, #Hua
Kautwane	G ana, G wi, Kua, #Hua
Takatokwane	Kgalagari, Afrikaans, G wi, #Hua
Tsetseng	Kgalagari, !Xóǀ, G wi
Tswaane	Kgalagari, G wi, !Xóǀ

Table 1: Ethnic groups living in villages in Kweneng West Subdistrict, Botswana (Hasselbringer et al. 2001: 68)

3.0 Body part³ terminology in Ju

3.1 Synonyms

'calf', 'ankle', 'elbow', 'shoulder', 'heart', 'hump', 'rib', 'hip bone', 'navel', 'kidney', 'anus', 'diaphragm', 'mouth', 'cheek', 'temple (of head)', 'fontanelle', 'penis', 'buttock/bottom', 'blister', 'urine', 'blood'

Unrelated forms in different dialects: 'ear', 'sweat', etc.

³ Under the concept "Body part", we include bodily emissions as well as conditions of the body (e.g. 'cramps') and visible characteristics of the body such as 'pimple', 'dimple', 'scar'.

3.2 Polysemies

'breast' = 'milk'
 'hair' = 'feather'

3.3 Conceptualizations of the body in Ju|'hoan

The word for 'finger' is morphologically derived from 'hand'.

nose	bridge of nose
	nasal passages
tooth	molar tooth
thigh	inside of thigh
arm	forearm
	upper arm
	hand
upper back	lower back
cheek	cheekbone
tongue	uvula
eye	eyelid

Table 2: Glosses of body part terms that are morphologically unrelated to each other in Ju|'hoan

3.4 Specific terms found in Ju languages

e.g. 'tooth gap', 'hollow between the collarbones', 'elephant trunk', 'side of torso' (Ju|'hoansi, Dickens 1994)

4.0 Body part terminology in #Hoan

4.1 Synonyms compared with Ju

a. #Hoan⁴: [g|ù:] 'calf (of leg)' (cf. Khwe⁵ ɲ|gúú 'lower leg', Khg.⁶ lnúú-p 'leg')
 [l'á:] 'lower leg' (specifically, the sides of the lower leg)
 Ju|'hoansi⁷: #hùrì, ||hù calf (of one's leg)

b. #Hoan: [gúrú] 'ankle' (cf. G|ui⁸ gúrú 'joint around the ankle', !Xóó⁹ gūlu 'ankle as a whole', may possibly compare to Ju|'hoansi gògòró 'heel')
 [#úrú] 'ankle bone or wrist bone that sticks out on the side'
 Ju|'hoansi: #hòè#hòrè, !hòm 'ankle'

Note: subtle semantic distinctions may exist that were not documented by Dickens (1994), but are in Snyman (1975) and other sources:

Ju|'hoansi: #hòè #hòrè 'enkelknop (die knop van die enkel)'
 !hòm 'enkel'

c. #Hoan: [#úní] 'elbow' (both sides & tip), [#úní:nà] 'inside of elbow'
 Ju|'hoansi: #húní, !húrú¹⁰ 'elbow'

cf. Naro #hònè, !Xóó g|qhúli, Ovambo !Xun g|húńí (Heikkinen 1986); Khg !'úńí-p, !Xóó !'úńí tshôe 'ante-cubital fossa'
 The pre-voicing in Ju and !Xóó indicate that these are earlier and Khoe has it as a loan although it is pan-Khoe.

d. #Hoan: [!qú:] 'heart'
 Ju|'hoansi: #áó 'heart', !x'á 'heart', 'in'

⁴ all #Hoan forms cited are from Sands et al. (2010).

⁵ all Khwe forms cited are from Kilian-Hatz (2003).

⁶ all Khoekhoegowab forms cited are from Haacke & Eiseb (2002)

⁷ All Ju|'hoan forms cited are from Dickens (1994).

⁸ All G|ui forms cited are from Nakagawa et al. (2004).

⁹ All !Xóó forms cited are from Traill (1994).

¹⁰ This second form is also found in Okongo !Xun and Ju|'hoansi; the first form is found across Ju (cf. Snyman 1997).

- e. #Hoan: [l'i] 'blood', [lq'ʂu] 'coagulated blood'
Ju|'hoansi: !'áng 'blood, money', jaq'á 'blood', n#hàng 'blood (of an animal)'
- f. #Hoan: [c'hǎ] 'penis'
Ju|'hoansi: thá 'penis', !aq'm 'penis, sting (of an insect)'
- g. #Hoan: [gʂám] 'kidney'
Ju|'hoansi: tzàrù, zaihn, #auh
- h. #Hoan: [lq'hòfʰ] 'ear'
Ju|'hoansi: !'húí (SE & Central Ju)
[!aʰ] (Mpunguwei, Angolan !Xun, Omatoko & Kameeldoring Ju) (Snyman 1997)
- i. #Hoan: [k'húβú] 'to sweat' (cf. [khòbò] in Mpunguwei and Angolan !Xun) (Snyman 1997); cf. Naro [khùbū] 'sweat'
Ju|'hoansi: tcoh

We recorded very few synonyms in #Hoan.

BUT, we have lots of words with subtle semantic distinctions:

- j. #Hoan: [h'ʂmmì] 'knee' (specifically, the sides of the knee)
[g|ò'ʂmì] 'kneecap'
cf. Ju|'hoansi: g|xòà 'knee', n#ù'í!'úá 'knee-cap, patella'
Okongo !Xun: [g|xòá] knee, [g|ò'ʂmì]¹¹ kneecap (Heikkinen 1986)
- k. #Hoan: [jìni] 'back side of armpit'
[jǎ'èndá] 'armpit' (cf. Ju|'hoansi da'ábàcàn!áng 'armpit')
[h'ǎò] ¹² 'front flesh of armpit', 'front part of shoulder, main part of a wing' (It is the upper upper arm, i.e. the front of the shoulder)¹³

¹¹ I also recorded this in Ekoka !Xun, as did König & Heine (2008: 28), so the striking similarity with the #Hoan word cannot be due to a regular sound correspondence.

¹² cf. Ju|'hoansi g#àqò 'forearm'. #Hoan should have a pharyngealized vowel and voiced click here for the correspondence to be regular. (The breathy voiced vowel might be reinterpretable as voicing on the click, as in my original transcription.)

¹³ This is the word given when asked for "wing" (lephuka).

- l. #Hoan: [sǎǎ] 'scar, healed area of a sore' (this is different than 'fresh cut wound')
[h'ǎ-ǎ] 'decorative/deliberate scars'¹⁴
[h'ǎβǎ] 'medicinal scars' (e.g. on temples or on stomach)
- m. #Hoan: [q'húù] 'a blister' (from being burnt)
[h'ǎí] 'a blister' (from abrasion, e.g. from wearing a too-tight shoe)

4.2 Polysemies

- #Hoan: [ŋ#ú:] 'breast, milk' #Hoan: [ŋ#ù] 'hair, feather'¹⁵
Ju|'hoan: kù 'breast, milk' Ju|'hoan: !kúf ([!x'úí]) 'hair, feather'
Naro: bfi 'breast, milk' Naro: !'ǎò 'hair, feather'
!Xóò: g#qhèè 'breast, milk' !Xóò: g|qhùá 'hair, feather'

4.3 Conceptualizations of the body in Ju-#Hoan

Distinct root?	Ju 'hoan	#Hoan		Ju 'hoan	#Hoan
nose	tzún, #uìhn	!q'ǎ:	bridge of nose	!xáín	x'ònò
			nasal passages	!xánú	!q'ǎ'ǎ:qà
tooth	n ah, tzàù	c'ú ¹⁶	molar tooth	!oàn	no
thigh	g!aoh	ám	inside of thigh	n háí	no
arm	#han	ŋá:	forearm	g#àqò	h'á: ¹⁷
			upper arm	òbà, g kóm	x'òà
			hand	g!áú	síú:
(upper) back	!aùh	!úí	lower back	zuhn, n#òè	ts'mà:
cheek	!omm, g àm n#àxòsì,	ŋó'βí	cheekbone	!úbíxáí	no
tongue	dharì	tsìrà:	uvula	gágárá, n!ànaxárá	no
eye	g á'á	Ó'ú	eyelid	thá'bt ¹⁸	no

¹⁴ cf. [h'x'oa] scar (cicatrice) (Dikundu !Xung) (Köhler 1971)

¹⁵ cf. [h'ǎ'mà] 'tail feathers of an ostrich', [!ú'ú] 'large feathers'

¹⁶ Transcribed by Gruber (1975)

¹⁷ cf. [g'lùmà] 'fleshy (upper) part of the lower arm', with similar forms in Khwe.

¹⁸ Okongo !Xun (Heikkinen 1986)

Derived forms in #Hoan include:

- [ts'ə̀ə̀qà] 'teeth' vs. [ts'ə̀ə̀ qà jíéqà] 'molar teeth'
- [lám] 'thigh' vs. [lám.nà] 'inner thigh'
- [ŋl'ó'βí] 'cheek, fleshy part of cheek' vs. [ŋl'ó'βí jà^{nɛ}.ŋl'ó'βí si jà^{nɛ}] 'cheekbone', [ŋl'ó'βí ŋh] 'cheekbones'
- [O'ú'á, O'ú'á] 'eye' vs. [O'ú'á !ùá, O'ú'á kùá] 'eyelid'
- [tsírà:] 'tongue' vs. [tsírà: l'ò'è'j] 'uvula' (and/or epiglottis) (lit. tongue + child of)

4.4 Specific body part terms

- tooth gap ([ts'ù) kɔ'ùrà (na)] 'gap between front teeth')
- hollow between the collarbones [lqòlòná, Nl'gòlòná] 'space between the collarbones'
- elephant trunk ([sú] 'hand, elephant trunk')
- side of torso ([#h'ò'ɪ] 'side of waist'), coagulated blood ([l'q'ú] 'coagulated blood')

Sample of specific terms found in #Hoan:

- [zíní] tear line (of certain animals) (cf. |Gui dzíní-ʔò 'lachrymal gland of wildebeest') (cf. [zíní:nà] 'inside corner of the eye' vs. [zò'í:nà] 'outer corner of the eye')
- [qànà:] belly fat, [gh'βí] fat on sides of waist
- [(')ŋ#à'nì:] 'buttock', [l'q'à:] outer sides of buttocks, [Oχuí nà] gluteal cleft, [ŋl'ò'è"] buttock folds, [lqò'βíná] buttock dimple
- [ts'á":] back of the head
- [lqò'βí:] head of femur
- [#qíní:nà] wrinkles in the space between the eyebrows, [ŋl'a'í] 'wrinkles' (due to old age), [ts'ù'qá] 'wrinkles or skin folds (anywhere on the body)'
- [lqò'ú] swollen lymph glands of throat
- [g!à'βá:] neck muscles
- [lqɔ'ú'βú] artery and vein opening into heart, [lqɔ'ú'βú:βù] large blood vessels above the heart, [!ùù"] '(large) blood vessels'
- [!qɔ'ú, !qɔ'ú:] muscles at the back of the thigh (cf. similar forms in |Gui & !Xóð), [lám!qùnì] 'upper back of thigh' (just below the round part of the bottom)
- [lχóní:] ball of foot ("toes") (cf. |Gui lχúní 'toes and fingers')
- [#ú'rí] ankle/wrist bone that protrudes
- [lχ'óé:] 'wrist joint', [lχ'óé:nà] 'hollow on wrist at the base of the back of the hand', [jù'ám] flat, inner part of the wrist (where you take the pulse), [lqá:] 'wrist'
- [fìù'βí:] cartilage of xiphisternum, [fìù'fìù'βí:] 'xiphisternum and its cartilage, Solar plexus'

4.6 The role of documentation: Stomach terms (cf. Sands et al. 2011a)

- [!h'ú:] 'stomach'
- [kúni":] 'belly' (cf. |Gui kúni 'the fat around the stomach (of man/ostrich)')
- [!ʃósi] 'rumen'
Initial glosses: 'one of the stomachs' 'the first stomach; where the food is stored'
- [Oqú'í] 'reticulum'
Initial gloss: 'the second stomach'
- [ŋ#á'ám] 'omasum/abomasum'¹⁹
Initial glosses: 'the stomach that looks all folded, like a Bible', 'the third stomach', 'the one before the intestines'
- [!h'ò'ú] 'caecum' ('part of the large intestine before the descending colon; it takes stuff to the colon') (cf. G|ui k!ùù 'colon')
- [glùì] 'stomach contents' (of a ruminant)²⁰
- [lχà'βé ŋ!áð"] 'small intestine' (lit. 'guts' + 'male')²¹
Initial glosses: "smaller stomach", the "watery one"

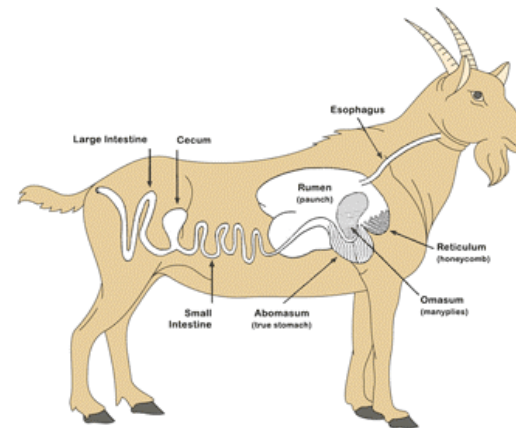


Figure 1: The digestive tract of goats (Correa 2009)

¹⁹ cf. Ju|'hoansi n#áq 'small intestine', !Xóð #nähm 'abomasum'

²⁰ cf. |Gui qlúí" 'fat of the small intestine'

²¹ cf. |Gui klàbē 'small intestine'

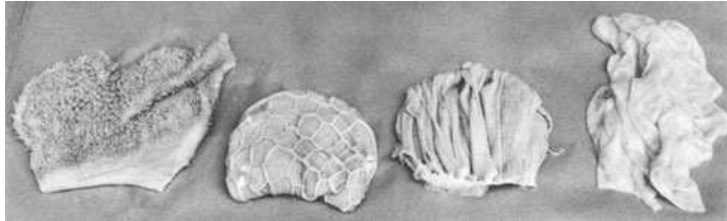


Figure 2: Inside structures of rumen, reticulum, omasum, and abomasum of goats. (Correa 2009).²² Note: 'rumen' (the first chamber, flat tripe), 'reticulum' (the second chamber, honeycomb tripe), 'omasum' (the third chamber, Bible tripe), 'abomasum' (the fourth chamber, reed tripe)

Ju'hoansi (Dickens 1994): [!gǀ] 'stomach, belly'

- 1st: ---- 'rumen'
- 2nd: gǀǎó!ǎn!ǎmà 'reticulum'
- 3rd: gǀǔǔ, gǀǎó 'omasum'
- 4th: ---- 'abomasum'
- 'caecum'

Naro: !'ǝǝ 'stomach', kǎbè 'stomach of cow', !nǎǎ +úú 'belly' ('head of stomach')

|Gui: ǀǎǎ 'stomach'

!Xóó: !ǝhǎ, !kxǎn, ǝǎi, !ǝhǎ ǎ, !ǝhǎ qǎe 'stomach'

!hǔma 'lower part of the belly', **!nǎm sǎ'ǎ** 'higher part of the belly', **!q'ǎbe** abdomen

- 1st: !kx'ǎn, !kx'ǎn qǎe 'rumen'
- 2nd: !kx'ǎn +ǔe 'reticulum'
- 3rd: +nǎhm, !kx'ǎn ǎ, !nǎhba !hǝa !'ǔǎ-te, !nǎhba !'oba !'ǔǔ, báǐ bíǐ 'omasum'
- 4th: ǝǎi 'abomasum'
- !gǔh'u 'caecum'
- +ǝǎba wall of stomach
- !nǎhna contents of the rumen

²² Photo cited in source as courtesy of G. F. W. Haenlein, University of Delaware

6. Discussion: Lexical comparisons in a linguistic area

...compare multiple languages from the region at the same time

... remember the role of chance in creating look-alike similarities

- particularly considering Khoisan morphotactic constraints

...role of shared polysemy, shared patterns of lexical semantics

- consider other semantic areas, e.g. kinship, perception terms, ideophones, verbs of eating, verbs of butchering, etc.

...body parts are not resistant to borrowing

Further work:

...Expand on the sound correspondence rules (Heine & Honken 2010)

- Can the delayed aspirated clicks in #Hoan be linked to Proto Ju?
- Do all (or most) delayed aspirated clicks in Ju correspond to "uvular" clicks in #Hoan?

...compare the #Hoan inventory (Bell & Collins) with the Proto Ju=#Hoan inventory (Heine & Honken 2010).

...has #Hoan become more !Xóó-like, |Gui-like, more Khoisan-like?

7. Conclusion

Finding cognates between #Hoan and Ju is not simply a matter of increasing the lexical documentation of #Hoan. One must compare lexemes from an areal perspective, and use/compile sources which have detail subtle semantic distinctions. Traill's statement of #Hoan cognates being "50% Northern, 33% Southern and 17% Central" fails to note the significant percentage of items that are found only in #Hoan, without recognizable cognates elsewhere.

References

- Bell, Arthur & Chris Collins. (2001). #Hoan and the typology of click accompaniments in Khoisan. *Khoisan: Syntax, Phonetics, Phonology, and Contact*. ed. A. Bell & P. Washburn. *Cornell Working Papers in Linguistics*, 18: 126-153.
- Dickens, Patrick J. (1994). *English-Ju'hoan, Ju'hoan-English dictionary*. (Quellen zur Khoisan-Forschung, 8). Köln: Rüdiger Köppe Verlag.

Gruber, Jeffrey S. (1975). Bushman languages of the Kalahari: #Hoan - vocabulary - stems. Technical project report to the National Endowment for the Humanities, Washington, D.C.

Haacke, Wilfrid H. G. & Eliphas Eiseb. (2002). A Khoekhoegowab Dictionary, with an English-Khoekhoegowab Index. Windhoek: Gamsberg Macmillan.

Hasselbring, Sue, Thabiso Segathe & Julie Munch. (2001) A Sociolinguistic Survey of the Languages of Botswana: Volume 2 (Sociolinguistic Studies of Botswana Language Series). Basarwa Languages Project, University of Botswana.

Heine, Bernd & Henry Honken. (2010). The Kx'a family: A new Khoisan genealogy. Journal of Asian and African Studies (Ajia Afuriku gengo bunka kenkyu), 79: 5-36. (Research Institute for Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies).

Kilian-Hatz, Christa. (2003). Khwe Dictionary. With a supplement on Khwe place names of West Caprivi (Namibian African Studies vol. 6), Köln: Rüdiger Köppe.

König, Christa & Bernd Heine. (2008). A Concise Dictionary of Northern !Xun. (Quellen zur Khoisan-Forschung, 21). Köln: Rüdiger Köppe.

Nakagawa, Hiroshi, Kazuyoshi Sugawara & Jiro Tanaka. (2004). |Gui-English Dictionary (A Preliminary Edition 2004 July).

Sands, Bonny, Andy Chebanne & Sheena Shah. (2010). Unpublished #Hoan field notes.

Sands, Bonny, Andy Chebanne & Sheena Shah. (2011a). Direct Lexical Elicitation in Language Documentation: Examples from #Hoan. Paper presented at ACAL 2011, 42nd Annual Conference on African Linguistics, June 10-12, 2011, University of Maryland, College Park, MD.

Sands, Bonny, Andy Chebanne & Sheena Shah. (2011b). Hunting terminology in #Hoan. Paper presented at the 4th International Symposium on Khoisan Languages and Linguistics ("The Hunter-Gatherer Legacy of Khoisan-Speaking Peoples" in Memory of Hans den Besten 1948-2010), 11-13 July 2011, Riezlern/Kleinwalsertal.

Snyman, J.W. (1975). Zu|hōasi Fonologie & Woordboek. Communication 37 of the University of Cape Town School of African Studies. Cape Town and Rotterdam. A. A. Balkema.

Snyman, J.W. (1997). A preliminary classification of the !Xūū and Z'ū|hōasi dialects.

Namibian Languages: Reports and Papers. ed. W. Haacke & E.D. Elderkin. Köln: Rüdiger Köppe. 21-106.

Truill, Anthony. (1973). "N4 or S7": Another Bushman language. African Studies. 32(1): 25-32.

Truill, Anthony. (1994). A !Xōō Dictionary. ed. Rainer Vossen. Quellen zur Khoisan-Forschung, 9. Köln. Rüdiger Köppe.

Appendix: Comparanda

Set I: Basic body-head terms

	#Hoan ²³	Ju hoan	Ekoka !Xun ²⁴	P-Kx'a	!Xōō	Gui
'head'	᠋᠋nūū	n áí	nē		lnàn	màā ⁿ
'hair'	kí-n#nú	!x'úí	!x'úí		g qhūā	!ʔūū ⁿ
'ear'	lq ^h ūí	!húí	l ^h ūí	*ŋ ŋúí	#núhā	k#ēē
'eye'	᠋᠋kōa	g à'á	g à'ā		!'ūí	#xái
'nose'	!q'ō	tzún	!xáj		lnùhpa	k#ūí
'mouth'	šīí	ts'í	tc'í	--	#ûe	kx'ámí
'tooth'	ts'íu	ts'àù	ts'áo	*ts'íu	l qhàā	klíúú ⁿ
'tongue'	cèla	dharì	đthàí		'lnàn	jém

Note: compare #Hōā ᠋᠋nūū 'head' and !Xōō ᠋᠋nūū 'louse'.

²³ #Hoan words in this table are from (Gruber 1975) (with reinterpreted tone marks), forms in the other tables are from Sands et al. (2010)

²⁴ All Ekoka !Xun forms cited in the tables are from König & Heine (2008)

Set II: Body part terms (less basic, but still common cross-linguistically)

	#Hoan	Ju 'hoan	Ekoka !Xun	P-Kx'a	!Xóǒ	Gui
'brains'	Om ^(w) á'á ⁿ	n aqnì	n aàqnnì		!Gǎǎ	‡xũ ⁿ
skull	(Omú ⁿ ú ⁿ já')	n áí'úá	'n ē !'ū-ā		!nàn ‡ǎǎ	--
'gum(s)'	jà ^f á ⁿ	dàqèndàqèn	--		'nǎhn- 'nǎhn-tê	--
'throat'	‡ŋó ^l i	dohm	dòm (dùm)		'!nǔm	--
'forehead'	tsù ⁿ	n hào	--		sà'ǎ	klòǒ
'face'	(!mOùà	!hó	!hō		sà'ǎ	--
'cheek'	ŋó ^l βi	!omm, g àm	(g ǎhŋ 'cheekbone')		!nǔbi	ŋ óβi
'palate'	‡χánò:	--	--		!ŋá'la tshóe ²⁵	!xánū-?ò
'jaw'	ŋ ^h à?à	--	--		‡ǎē	g ǎní
'temple'	ŋ ^h à'ùnì nà ²⁶	xò	!hō g ǎm		Oq'úbe tshóe	--
'chin'	zìnà	g aihn	g ǎŋ		dzàni	g ǎí ²⁷ , cf. g ǎní ²⁸
'beard'	zù ^f ám	sòrò ²⁹	g !òŋgòlò		!nùm	--
'horn'	!hòó	!hú	!hú	*!hǒ	!lǎē	--
'comb' (of a bird)	!hàf ³⁰ , !hù ³¹	háó, n ái- n à-n ànà	--		--	--

²⁵ cf. Khoekhoegowab ǀ!hà-rà-p 'palate' and #Hoan ŋ^hà?à 'jaw'

²⁶ cf. Khwe ‡'úní 'temple'

²⁷ 'the cheek bone, chin bone'

²⁸ 'jaw (the tip of the jaw; the area under the lower lip)'

²⁹ 'beard on the cheeks'

³⁰ 'cockscorb'

³¹ 'comb of a guineafowl'

Set III: Body part terms (less common cross-linguistically)

	#Hoan ³²	Ju 'hoan	Ekoka !Xun	P-Kx'a	!Xóǒ	Gui
'upper lip'	dzó'ám	tzí'ó	tc'í nǒ ³³		dzúm	ts'úm ³⁴
'lower lip'	dʒũũ				dōa	ǰíβé
'bridge of nose'	χ'òndò	!xáín	!xáj 'nose ridge'		kx'únu	--
nasal passages	!q'χá'-qà	!xánú	--		'!nùm ³⁵	(cf. !xánū- ?ò 'palate')
canine tooth, fang, tusk	‡qáró ³⁶ , !qũ ⁿ 'tusk'	‡háré ³⁷	--		‡qólo 'tusk', 'canine'	qǰáró
elephant trunk	-- ('hand' is used)	n#haqnà	!!hànnà		--	--
back of the head	ts'á:	--	djòà níǰ 'back half of head'		(khàn 'base of skull)	--

³² Words in this table are from (Gruber 1975) (with reinterpreted tone marks).

³³ It is likely that Ju does have a distinction between upper and lower lip but it has not been well-documented, cf. [zòŋ] tip of upper lip (Okongo !Xung) (Heikkinen 1986), [zuⁿ] (upper lip (Dikundu !Xung) (Köhler 1971) (& zùn (n5 -si) beak, bill. (Ju|'hoansi) (Dickens 1994)).

³⁴ 'bill, beak', 'the lips; the upper area of the upper lip', cf. PWK *ts'òǎ

³⁵ Glossed as 'sinus'

³⁶ Recorded as [‡qáró ŋi] 'fangs', [‡qáró (ŋi)] 'warthog tusk'

³⁷ cf. Khwe ‡qááé

