Hoan Body Part Terminology in Comparative Perspective
Bonny Sands & Henry Honken
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1. Introduction
The genealogical relationship of the Hoan language to the Ju languages (in a newly labelled Ka'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 !Xóõ and G|ui. These findings underscore the danger inherent in a language classification which relies primarily on lexical data alone.

Acknowledgements
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We would like thank all the Hoan language consultants Sands worked with: Muchuwaiiko Tsaaidla, Basenane Mosupatsela, Mosekathoshe Molutwane, Suaagai Ntalecioeixo, Talela Mosupatsela, and Justa Mosekatoshe of Dutlwe and Tshwaane, Botswana.

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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 G|ui and Shekgalagari as well as Hoan, but the three youngest only have a passive knowledge of G|ui. None of the speakers claimed any ability in !Xóõ (cf. Sands et al. (2011b) for further information on the backgrounds of the Hoan speakers).

| Dutliwe          | Kgalagari, !Xóõ, G|wi |
|------------------|-----------------------|
| Lotse            | !Xóõ                  |
| Khudumelapye     | Kgalagari, Giwi, Kua, Hua |
| Letlhakeng       | Kgalagari, Tswana, Giwi, Kua, Hua |
| Maboane          | Kgalagari, Giwi       |
| Magagarape       | Kgalagari, Giwi       |
| Motokwe          | Kgalagari, Giwi       |
| Khokhenye        | Giwi, !Xóõ            |
| Salajwe          | Kgalagari, Giwi, Kua, Hua |
| Kautwane         | Giwana, Giwi, Kua, Hua |
| Takotokwane      | Kgalagari, Afrikaans, Giwi, Hua |
| Tseteng          | Kgalagari, !Xóõ, G|wi |
| Tswana           | Kgalagari, Giwi, !Xóõ |

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

3.0 Body part2 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.

2 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'.

1 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 Polysemes

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

3.3 Conceptualizations of the body in Ju'hoan

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

<table>
<thead>
<tr>
<th>nose</th>
<th>bridge of nose</th>
</tr>
</thead>
<tbody>
<tr>
<td>tooth</td>
<td>nasal passages</td>
</tr>
<tr>
<td>thigh</td>
<td>molar tooth</td>
</tr>
<tr>
<td>arm</td>
<td>inside of thigh</td>
</tr>
<tr>
<td>upper arm</td>
<td>forearm</td>
</tr>
<tr>
<td>hand</td>
<td></td>
</tr>
<tr>
<td>upper back</td>
<td>lower back</td>
</tr>
<tr>
<td>cheek</td>
<td>cheekbone</td>
</tr>
<tr>
<td>tongue</td>
<td>uvula</td>
</tr>
<tr>
<td>eye</td>
<td>eyelid</td>
</tr>
</tbody>
</table>

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

- 'tooth gap', 'hollow between the collarbones', 'elephant trunk', 'side of torso' (Ju'hoansi, Dickens 1994)

4.0 Body part terminology in Ju’hoan

4.1 Synonyms compared with Ju

a. Ju’hoan: [i^i3u] 'calf (of leg)' (cf. Khwe: i^i3u 'lower leg', Khg: i'^i3u-p 'leg')
   [i^i3u] 'lower leg' (specifically, the sides of the lower leg)
   Ju’hoansi: [i^i3u], [i^i3u] 'calf (of one's leg)

b. Ju’hoan: [i^i3u] 'ankle' (cf. Ju’hoansi 'enkelknop (die knop van die enkel)'
   'lower leg' (specifically, the sides of the lower leg)
   Ju’hoansi: [i^i3u] 'ankle'
   [i^i3u] 'ankle bone or wrist bone that sticks out on the side'
   Ju’hoansi: [i^i3u] [i^i3u], [i^i3u] 'ankle'

   Note: subtle semantic distinctions may exist that were not documented by Dickens (1994), but are in Snyman (1975) and other sources:
   Ju’hoansi: [i^i3u] [i^i3u] 'ankle'
   [i^i3u] 'enkel'

   c. Ju’hoan: [i^i3u] 'elbow' (both sides & tip), [i^i3u] 'inside of elbow'
   Ju’hoansi: [i^i3u], [i^i3u] 'elbow'

   cf. Naro: [i^i3u], Ovambo: 'elbow'
   Ju’hoansi: [i^i3u], [i^i3u] 'elbow'

   d. Ju’hoan: [i^i3u] 'heart'
   Ju’hoansi: [i^i3u] 'heart', [i^i3u] 'heart', 'in'

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1 All Ju’hoan forms cited are from Sands et al. (2010).
2 All Khwe forms cited are from Kilian-Hatz (2003).
3 All Khoekhoe, KhoeKwes, Khoekhoegowab forms cited are from Haacke & Eiseb (2002)
4 All Ju’hoan forms cited from Dickens (1994).
5 All Ju’hoan forms cited are from Dickens (1994).
6 All Guu forms cited are from Nakagawa et al. (2004).
7 All Khwe forms cited are from Traill (1994).
e. *Hoan: [l'j] 'blood', [lq'ʃu] 'coagulated blood'
Ju’hoansi: šāng 'blood, money', jaq’a 'blood', n†hàng 'blood (of an animal)'
f. *Hoan: [xə] ‘penis’
Ju’hoansi: thā ‘penis’, jaq’m ‘penis, sting (of an insect)’
g. *Hoan: [gɔn] ‘kidney’
Ju’hoansi: tsārù, zaṁn, *auh
h. *Hoan: [kq’ți] ‘ear’
Ju’hoansi: ʃhǔ (SE & Central Ju)
   [t’a] (Mpunguvelu, Angolan !Xun, Omatako & Kameeldoring Ju) (Snyman 1997)
Ju’hoansi: tcoh

We recorded very few synonyms in *Hoan.

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

j. *Hoan: [k’lɔmm] ‘knee’ (specifically, the sides of the knee)
   [glo’mi] ‘kneecap’
cf. Ju’hoansi: gšo ‘knee’, n†u’l’ša ‘kneecap, patella’
Okongo !Xun: [gixɔs] knee, [gšo’l’]11 ‘kneecap (Heikkinen 1986)

k. *Hoan: [kɔn] ‘back side of armpit’
   [kɔl’nd] ‘armpit’ (cf. Ju’hoansi da’b’rān!āŋg ‘armpit!’
   [qɔ]13 ‘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)

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 gšāq ‘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” (lephaka).

1. *Hoan: [sq’o] ‘scar, healed area of a sore’ (this is different than ‘fresh cut wound’)
   [lq’o] ‘decorative/deliberate scars’
   [sq’o] ‘medicinal scars’ (e.g. on temples or on stomach)

m. *Hoan: [q’u] ‘a blister’ (from being burnt)
   [q’u] ‘a blister’ (from abrasion, e.g. from wearing a too-tight shoe)

4.2 Polysemes
*Hoan: [tʃu] ‘breast, milk’
Ju’hoan: kú ‘breast, milk’
Naro: bʃļ ạ ‘breast, milk’
!Xóo: gšhëh ‘breast, milk’

4.3 Conceptualizations of the body in Ju-*Hoan

<table>
<thead>
<tr>
<th>Distinct root?</th>
<th>Ju’hoan</th>
<th>*Hoan</th>
<th>Ju’hoan</th>
<th>*Hoan</th>
</tr>
</thead>
<tbody>
<tr>
<td>nose</td>
<td>ṭzān, ŋuṁn</td>
<td>ṭq’c</td>
<td>ṭšān</td>
<td>ṭq’áñù</td>
</tr>
<tr>
<td>nasal passages</td>
<td>ṭxānú</td>
<td></td>
<td>ṭq’oq’qù</td>
<td></td>
</tr>
<tr>
<td>tooth</td>
<td>n̥jaŋ, ṭzān</td>
<td>ɛ’t’ù10</td>
<td>ṭoɑn</td>
<td>no</td>
</tr>
<tr>
<td>molar tooth</td>
<td>ṭoɑn</td>
<td></td>
<td>ṭoɑn</td>
<td>no</td>
</tr>
<tr>
<td>thigh</td>
<td>ṭg’løh</td>
<td>ṭløn</td>
<td>ṭn̥j’iăr</td>
<td>no</td>
</tr>
<tr>
<td>inside of thigh</td>
<td>ṭn̥j’iăr</td>
<td></td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>arm</td>
<td>ṭhæn</td>
<td>ṭjɑ</td>
<td>ɡ’q’ą</td>
<td>ṭq’u17</td>
</tr>
<tr>
<td>forearm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>upper arm</td>
<td>ṭløb, ṭjɑkɔm</td>
<td>ɡ’q’ą</td>
<td>ṭq’u</td>
<td></td>
</tr>
<tr>
<td>hand</td>
<td>ṭg’løh</td>
<td></td>
<td>ɡ’q’ą</td>
<td>ṭq’u</td>
</tr>
<tr>
<td>(upper) back</td>
<td>ɡuù</td>
<td>ṭú</td>
<td>lower back</td>
<td>ṭzuh, ṭn̥bè</td>
</tr>
<tr>
<td>cheek</td>
<td>ṭjɔmm, ġɑm</td>
<td>ɡn̥ɔþì</td>
<td>cheekbone</td>
<td>ṭub’ikɔxí</td>
</tr>
<tr>
<td>tongue</td>
<td>ṭhɑr</td>
<td>ṭsrè</td>
<td>uvula</td>
<td>ṭg’gãrã, n̥l’nsãrã</td>
</tr>
<tr>
<td>eye</td>
<td>gšã</td>
<td>Qɔ’</td>
<td>eyelid</td>
<td>ṭq’ì15</td>
</tr>
</tbody>
</table>

14 cf. [x’u] scar (cicatrice) (Dikundu !Xung) (Köhler 1971)
15 cf. [tʃ’u’l’mu] ‘tail feathers of an ostrich', [t’l’u] ‘large feathers’
16 Transcribed by Gruber (1975)
17 cf. [g’lømø] ‘leathly (upper) part of the lower arm', with similar forms in Khwe.
18 Okongo !Xun (Heikkinen 1986)
Derived forms in Hoan include:

[tsʰuɔˈqɯ] ‘teeth’ vs. [tʃuɔˈqɯ piɛqɯ] ‘molar teeth’
[ʃuɪn] ‘thigh’ vs. [ɬuɪn.nu] ‘inner thigh’
[ɔɬu, ɔɬu] ‘eye’ vs. [ɔɬu tɔa, ɔɬu kûʊ] ‘eyelid’
[tsʰiɾu] ‘tongue’ vs. [tsʰiɾu ɬʰuɔɬi] ‘uvula’ (and/or epiglottis) (lit. tongue + child of)

4. Specific body part terms

tooth gap (((tsʰu) kʃ ʔuɔ ʔu) (nai)) ‘gap between front teeth’
hollow between the collarbones [ɬiɛɬɔn̥u, nɦɬoɬɔn̥u] ‘space between the collarbones’
elephant trunk ([ɠu] ‘hand, elephant trunk’)
side of torso (ɬh¹ɬt¹ ‘side of waist’), coagulated blood ([ɬiɛɬu] ‘coagulated blood’)

Sample of specific terms found in Hoan:
[ʐiŋn] ‘inside corner of the eye’ vs. [ʑoɬiŋn] ‘outer corner of the eye’)
[ɭuɦu] ‘belly fat, [ɡɨɾ] ‘fat on sides of waist
buttock folds, [ɬiɛɬn̥] buttock dimple
[tsʰu] ‘back of the head
[ɬiɛɬi] ‘head of femur
[ʅŋ³] ‘wrinkles in the space between the eyebrows, [giuɔ]’ ‘wrinkles’ (due to old age),
[tsʰu] ‘wrinkles or skin folds (anywhere on the body)’
[ɬiɛɬu] ‘swollen lymph glands of throat
[ɬiɛɬ] ‘neck muscles
[ɭuɛɬ] ‘artery and vein opening into heart, [ɭuɛɬuɬ말] large blood vessels above the heart, [ɭu]’ (large) blood vessels’
[ɭuɛɬ, ɭuɛɬ ɬu] muscles at the back of the thigh (cf. similar forms in Gui & !Xo),
[ɬuɦuɨ] ‘upper back of thigh’ (just below the round part of the bottom)
[ɭuɛɬ] ‘ball of foot (\textit{\textquoteleft }toes\textquoteright )’ (cf. Gui ɬu ɬu ‘toes and fingers’)
[ɭu] ‘ankle/wrist bone that protrudes
[ɭuɛɬ] ‘wrist joint’, [ɭuɛɬ ɬu] ‘hollow on wrist at the base of the back of the hand,
[ɭuɛɬ] ‘flat, inner part of the wrist (where you take the pulse), [ɭu]’ ‘wrist’
[ʃuɪ] cartilage of xiphisternum, [ʃuɪ] ‘xiphisternum and its cartilage, Solar plexus’

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

[ʃu] ‘stomach’
[ʃuko] ‘belly’ (cf. Gui ɗu ‘the fat around the stomach (of man/ostrich)’
[ʃo] ‘rumen’
Initial glosses: ‘one of the stomachs’ ‘the first stomach; where the food is stored’
[ʃu] ‘reticulum’
Initial gloss: ‘the second stomach’
[ʃu] ‘omasum/abomasum’
Initial glosses: ‘the stomach that looks all folded, like a Bible’, ‘the third stomach, ‘the one before the intestines’
[ʃu] ‘caecum’ (‘part of the large intestine before the descending colon; it takes stuff to the colon’) (cf. Gui ɗu ‘colon’)
Initial glosses: ‘smaller stomach’, the “watery one”

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{digestive_tract_of_goats.png}
\caption{The digestive tract of goats (Correa 2009)}
\end{figure}

\footnote{cf. Ju’hoansi \textit{ni} ‘small intestine’, !Xo ‘\textit{nhãm} ‘abomasum’}
\footnote{cf. Gui ɗu ‘fat of the small intestine}
\footnote{cf. Gui ɗu ‘small intestine’}
Inside structures of rumen, reticulum, omasum, and abomasum of goats. (Correa 2009). 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)

Jùhoansi (Dickens 1994): [g̥d̥] 'stomach, belly'
  1st: ----- 'rumen'
  2nd: g̥b̥ó 'bó/ãmá 'reticulum'
  3rd: g̥b̥ó 'omasum'
  4th: ----- 'abomasum'

Naro: l̥b̥ó 'stomach', k̥be 'stomach of cow', n̥há 4d̥ 'belly' ('head of stomach')

Gü: g̥l̥a 'stomach'

†X̥ō: l̥h̥á, Ḳ̥k̥x̥è, Od̥ 'l̥h̥á ₃a, l̥h̥á qæ 'stomach'

|h̥áma| 'lower part of the belly'. Inâm sâ 'higher part of the belly', Iq̥ábe abdomen
  1st: Ḳ̥k̥x̥è, Ḳ̥k̥x̥è qæ 'rumen'
  2nd: Ḳ̥k̥x̥è qæ 'reticulum'
  3rd: Ḳ̥̄n̥h̥̄m̥, Ḳ̥k̥x̥è ₃a, l̥h̥ába Ḳ̥h̥á | 'qæ-te, l̥h̥ába Ḳ̥h̥á | 'qæ, b̥á bi bi ʰóma 'omasum'
  4th: Od̥ 'l̥h̥á 'abomasum'

Ig̥h̥á 'caeum'

h̥ába wall of stomach

In̥h̥áma contents of the rumen

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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 H̄oan be linked to Proto Ju?
  • Do all (or most) delayed aspirated clicks in Ju correspond to "uvular" clicks in H̄oan?
...compare the H̄oan inventory (Bell & Collins) with the Proto Ju = H̄oan inventory (Heine & Honken 2010).
...has H̄oan become more !Xôö-like, !Gü-like, more Khoisan-like?

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

References


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


Appendix: Comparanda

Set I: Basic body-head terms

<table>
<thead>
<tr>
<th>H!Hoan23</th>
<th>Ju/hoan</th>
<th>Ekoka !Xun24</th>
<th>P-Kx’i’a</th>
<th>!Xóõ</th>
<th>Gui</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘head’</td>
<td>Önúu</td>
<td>náí</td>
<td>nè</td>
<td>̀nán</td>
<td>màá”</td>
</tr>
<tr>
<td>‘hair’</td>
<td>̀q’úí</td>
<td>̀húí</td>
<td>̀óí</td>
<td>*jljíí</td>
<td>*nlhá</td>
</tr>
<tr>
<td>‘eye’</td>
<td>Çkóó</td>
<td>gíla</td>
<td>gí’á</td>
<td>̀íí</td>
<td>̀xáí</td>
</tr>
<tr>
<td>‘nose’</td>
<td>*q’o</td>
<td>tzún</td>
<td>̀xaí</td>
<td>̀ związku</td>
<td>k’éé</td>
</tr>
<tr>
<td>‘mouth’</td>
<td>sáí</td>
<td>ts’tí</td>
<td>ts’tí</td>
<td>--</td>
<td>*ňúę</td>
</tr>
<tr>
<td>‘tooth’</td>
<td>ts’tú</td>
<td>ts’úü</td>
<td>ts’dó</td>
<td>*ts’úü</td>
<td>ls’háá</td>
</tr>
<tr>
<td>‘tongue’</td>
<td>cëla</td>
<td>dhire</td>
<td>dhañé</td>
<td>1’mín</td>
<td>̀ín’é</td>
</tr>
</tbody>
</table>

Note: compare H!Hoó Önúu ‘head’ and !Xóõ Önúū ‘louse’.

23 H!Hoan words in this table are from (Gruher 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)

<table>
<thead>
<tr>
<th>#Hoan</th>
<th>Ju’hoan</th>
<th>Ekoka !Xun</th>
<th>P-Ks’a</th>
<th>!Xóó</th>
<th>Gui</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘brains’</td>
<td>ē-ni</td>
<td>njaq'ni</td>
<td>njáaq'ní</td>
<td>njáá</td>
<td>?sáá</td>
</tr>
<tr>
<td>skull</td>
<td>o-o-e</td>
<td>njáá‘uá</td>
<td>‘náá’l-e-á</td>
<td>‘náá’l-láá</td>
<td>--</td>
</tr>
<tr>
<td>‘gun(s)’</td>
<td>yá-yá</td>
<td>daqeqeqn</td>
<td>--</td>
<td>‘sáá’ñ-n-té</td>
<td>--</td>
</tr>
<tr>
<td>‘throat’</td>
<td>ti-yí</td>
<td>dohm</td>
<td>dóm (dúm)</td>
<td>‘múm</td>
<td>--</td>
</tr>
<tr>
<td>‘forehead’</td>
<td>tsiu</td>
<td>n’háó</td>
<td>sá’a</td>
<td>kloó</td>
<td>--</td>
</tr>
<tr>
<td>‘face’</td>
<td>‘</td>
<td>ts’u’</td>
<td>hó</td>
<td>‘hó</td>
<td>sá’a</td>
</tr>
<tr>
<td>‘cheek’</td>
<td>tsh’ó</td>
<td>‘omm</td>
<td>gjum</td>
<td>(g’áňh ’cheekbone’)</td>
<td>luúbi</td>
</tr>
<tr>
<td>‘palate’</td>
<td>t’á-nó:</td>
<td>--</td>
<td>--</td>
<td>‘l’á’ la</td>
<td>tshóče²⁵</td>
</tr>
<tr>
<td>‘jaw’</td>
<td>g’áňh</td>
<td>--</td>
<td>--</td>
<td>‘hó</td>
<td>g’áńh</td>
</tr>
<tr>
<td>‘temple’</td>
<td>g’áńh ná³⁶</td>
<td>xo</td>
<td>‘hó</td>
<td>g’áńh</td>
<td>C’í’ábe</td>
</tr>
<tr>
<td>‘chin’</td>
<td>g’áňh</td>
<td>g’áńh</td>
<td>g’áńh</td>
<td>dzáni</td>
<td>g’áńh²⁸</td>
</tr>
<tr>
<td>‘beard’</td>
<td>g’áńh</td>
<td>soló-e³⁸</td>
<td>g’áńh</td>
<td>l’ó’egoló</td>
<td>‘núm</td>
</tr>
<tr>
<td>‘horn’</td>
<td>‘tóó</td>
<td>‘húí</td>
<td>‘húí</td>
<td>‘tóó</td>
<td>‘háé</td>
</tr>
<tr>
<td>‘comb’ (of a bird)</td>
<td>?áhé³²</td>
<td>‘tóó</td>
<td>‘háé</td>
<td>‘tóó</td>
<td>‘háé</td>
</tr>
</tbody>
</table>

²⁵ Words in this table are from (Gruher 1975) (with reinterpreted tone marks).
²⁶ It is likely that Ju does have a distinction between upper and lower lip but it has not been well-documented, cf. [zún] tip of upper lip (Okongo !Xung) (Heikkinen 1986), [ziu] (upper lip (Dikundu !Xung) (Köhler 1971) (& zún (n5 -si) beak, bill. (Ju’hoan)).
³² ‘bill, beak; the lips; the upper area of the upper lip’, cf. PWK *ts’óhn
³³ Glossed as ‘sinus’
³⁴ Recorded as [*t’óరó ]’fangs’, [*t’óరó ]’warthog tusk’
³⁵ cf. Khwe ?jíráré