

Perception verbs in Tuu

Tom Güldemann

Humboldt University Berlin and MPI for Evolutionary Anthropology Leipzig

1 Introduction

+ Nakagawa (2008), inspired by Viberg (e.g., 1984): perception verbs in Kalahari Khoe with typologically highly interesting phenomena, strong indications that these are not restricted to this language group

> comparative investigation of this domain within the EuroBabel project network “The Kalahari Basin area: a ‘Sprachbund’ on the verge of extinction” by means of a unified questionnaire with a fixed set of lexical items in their respective contexts (cf. Appendix 1)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience	Copulative		
Sight	look at	see	look	beautiful	ugly
Hearing	listen to	hear	sound	good, nice	bad
Taste	taste				
Touch	feel				
Generic	feel				
Smell	smell				

Table 1: Perception verbs in English

+ report here first results of research on three languages of the Tuu family:

(1) Taa-Lower Nossob

a. **Taa (DC)**

West: N|u||en†, West !Xoon

East: N|amani†, Kakia†, East !Xoon, ’N|oha, etc.

b. Lower Nossob (?DC): |’Auni†, |Haasi†

(2) !Ui

a. |Xam† (DC): Strandberg, Achterveld, etc.

b. N||ng (DC): †Khomani, N|huki, N|uu, ||’Au

c. †Ungkue†

d. ||Xegwi†

Note: DC = dialect cluster, † = extinct, **Language with extensive data available**

Figure 1: Classification of Tuu (= Southern Khoisan)

2 Perception verb systems in individual Tuu languages

2.1 N||ng (!Ui)

- moribund language with very few speakers

- idiolectal variation partly reflects old dialectal divergence

> represented here by N|uu in the northwest (speakers C, F) vs. ||’Au in the southeast (speaker B)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience	Copulative		
Sight	†aqe	n aa	(ku)	haquka	†xuin
Hearing	ka tyum’in	tyuu	-	tyhaa’i	kx’uu †xuin
Taste	(ka) ts’inn’in	ts’inn	ts’inn	tyhaa’i	kx’uu †xuin
Touch	ka khinn’in	khinn	khinn, (tyhaa)	tyhaa’i	kx’uu †xuin
Smell	ka !qhao kx’ain	!qhao	’ann	tyhaa’i	kx’uu †xuin

Table 2: Perception verbs of speaker C (N|uu variety)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience	Copulative		
Sight	†aqe	n aa	(ku)	haquka	†xuin
Hearing	ka tyum’in	tyuu	-	tyhaa’i	qoqan’i
Taste	ts’inn	ts’inn	(ts’inn), ts’aa	tyhaa’i	qoqan’i
Touch	khinn	khinn	tyhaa, (naa)	?†huu	?†xunn
Smell	!qhao	!qhao	’ann	tyhaa’i, (†huu)	qoqan’i

Table 3: Perception verbs of speaker F (N|uu variety)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience	Copulative		
Sight	†aqe	n aa	ku, nyaa	haqoka	†xuin
Hearing	tyum(’in)	tyuu	-	tyhaa’i	qoqa’i
Taste	ts’inn	ts’inn	ts’inn, (ts’aa)	tyhaa’i	qoqa’i
Touch	†inn(’in), khinn	khinn	khinn	-	-
Smell	?	’ang	’ang	tyhaa’i	?

Table 4: Perception verbs of speaker B (||’Au variety)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience	Copulative		
Sight	* \ddot{a} qe	*n aa	(*ku), (?*naa)	* haquka	* \ddot{x} uin
Hearing	*tyum('in)	*tyuu	?	*t(y)haa'i	* qoqa(n)'i
Taste	*ts'inn >		*ts'aa		
Touch	*khinn >		*t(y)haa, (?*naa)		
Smell	* qhao		* 'aN		

Table 5: Perception verbs of Proto-N|ng (preliminary)

2.2 |Xam (!Ui)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience	Copulative		
Sight	kx'o(q)e(nn/ng)	n aa, (?ttaan)	?	?	?
Hearing	tum, tuui, (n)e tuu	tuu	?	?	?
Taste	ts'am	?	?	?	?
Touch	? (ts'am)	ttaan	ttaan	?	?
Generic	ttaan'in	ttaan, (ttang)	(ttang)	?	?
Smell	!k(h)ao(n), kui \ddot{a} qa au, ?		ttang, 'ang	?	?

Table 6: Perception verbs of |Xam

2.3 Taa (East !Xoon variety, Taa-Lower Nossop)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience			
Sight	uqM (55) n aqM (92)	n aM (67)	(na)bM (193) taqbM (155)	qain (178)	\ddot{x} uin (136)
Hearing	(q)'ole (120, 129)	taqM (154)	taqbM (155)	⊙qx'um (48)	qaqi (178) g laqan (107)
Taste	ts'ann kM (168)	taqM (154)	taqbM (155)	⊙qx'um (48)	g laqan (107)
Touch	taqM (154) am am (104)	taqM (154)	taqbM (155)	⊙qx'um (48)	g laqan (107)
Generic	taqM (154)	taqM (154)	taqbM (155)	⊙qx'um (48)	qaqi (178) g laqan (107)
Smell	\ddot{a} ohon kM (132) n um taqM (154)	taqM (154) n um taqM (154)	taqbM (155) n um kM (69)	⊙qx'um (48)	g laqan (107)

Note: (...) = page number in Traill (1994)

Table 7: Perception verbs of Taa

3 Relations between different perception verb types

+ perception verbs are a productive source for other verbs

- also relevant in Tuu: e.g., 'ask' seems to be derived morphologically from experience verbs

	Experience verb	'ask'
N ng	tyuu 'hear'	ka tyuu'in
Xam	ttang 'feel'	ttang'in

> in-depth investigation for general semantic relations of perception verbs also within this domain - "semantic map" approach

3.1 "Horizontal" relations

3.1.1 Quality verb derived from perception verb by implicature

+ positive or negative quality implied by neutral perception concept:

	Perception	Quality
English	taste	be <i>tasty</i> (positive)
German	<i>schmecken</i> 'taste'	<i>schmecken, schmackhaft sein</i> 'be tasty'
English	smell	smell (negative)
German	<i>riechen</i> 'smell'	<i>riechen</i> 'smell bad'

+ N|ng: positive quality verb for non-sight perception *tyhaa'i* 'feel/be good' formally similar to generic phenomenon touch verb *tyhaa* 'feel', possible suffixation of '-i' (cf. §4 below for possible motivation of semantic genericity of *tyhaa'i* to all non-sight perception)

(1) *!xaisi ke tyhaa |uaxu se dyoon*
cloth THET feel sheep GEN skin
the cloth feels like sheep skin

(2) *!'ui ke tyhaa'i*
song THET be.good
the song is good

+ |Xam: segmental identity of negative quality verb for body perception *ttang* 'feel pain' and generic experience verb *ttang* 'feel'

(3) *!'aun ee ttang toi |wai*
soil.2 2REL feel ostrich scent
dust which smelt of the ostrich's scent (Bleek 1956: 191)

(4) *ng ttang*
1S feel.pain
I was in pain (Bleek 1956: 191)

3.1.2 Phenomenon verb derived from experiencer verb

+ typologically frequent S=O ambitransitive valency alternation relevant for perception

verbs - familiar from English (cf. Table 1) and other languages:

	Experiencer	Phenomenon
German	<i>fühlen</i> 'feel (generic)'	<i>sich anfühlen (wie)</i> 'feel (like)'
Tswana	<i>utlwa</i> 'feel (generic)'	<i>utlwala</i> 'feel (like)'

+ Taa: generic phenomenon verb *taqbM* 'feel (like)' derived from experience verb *taqM* 'feel' by incorporation of simulative marker bM

- (5)a. *Piita nm ba taqan toqm taqan < taqM-an*
 PN ? IPFV feel:2 skin.2
 Peter feels the skin
- b. *toqm taqma /'oa taqma < taqbM-an*
 skin.2 feel.like:2 soft
 the skin feels soft

+ N||ng: experiencer verbs 'feel' and 'taste' expand into the domain of phenomenon verbs

- (6)a. *Petrus ke khinn-a !ao 'n//a !kx'u* experience
 PN THET feel-RELV stone MPO:PROX feet
 Peter felt a stone under his foot
- b. *!xaisi ke tyhaa ng dyoon* phenomenon
 cloth THET appear 1S skin
 the cloth feels like my skin (speaker F)
- (7)a. *Petrus ke xng khinn-a //uru 'n//a !kx'uuke* experience
 PN THET PST feel-RELV stone MPO:PROX feet
 Peter felt a stone under his feet
- b. *!xaisi a ke ka mana tyhaa* phenomenon
 cloth DEI THET ? soft appear
 the cloth feels soft
- c. *!xaisi a ke khinn //aa ng dyoon* phenomenon
 cloth DEI THET feel SIML 1S skin
 the cloth feels like my skin (speaker C)

- (8)a. *Petrus ke ts'inn-a dyebe ng aanki //a'en* experience
 PN THET taste-RELV salt MPO food inside
 Peter tasted salt in the food
- b. *aanki ke ts'aa dyebe* phenomenon
 food THET taste.like salt
- c. *aanki ke ts'inn dyebe* phenomenon
 food THET taste salt
 the food tastes salt (speaker F)
- (9)a. *Petrus ke xng ts'inn-a dyebe ng aanki* experience
 PN THET PST taste:RELV salt MPO food
 Peter tasted salt in the food
- b. *aanki hngke ke ts'inn dyebe* phenomenon
 food DEL.P THET taste salt
 this food tastes salty (speaker C)

3.1.3 Activity verb derived morphologically from experience verb

+ activity verb derived from experience verb by means of morphology expressing more intensive action and/or greater affectedness of participants

	Experience	Activity
German	<i>hören</i> + ACC 'hear'	<i>zuhören</i> + DAT 'listen to' <i>sich anhören</i> + ACC 'listen to'

+ |Xam: apparent etymological relations with 'hear'-'listen' and 'feel'

	Experience	Activity
	<i>taan</i> 'feel'	<i>taan'in</i> 'feel' < * <i>taan-i</i>
	<i>tuu</i> 'hear'	<i>n/e tuu</i> 'listen' = IPFV hear <i>tuu</i> 'listen' < * <i>tuu-i</i> <i>tum</i> 'listen' ? < * <i>tuu-?</i>

+ N||ng: transparent derivation by prefixation of pluralational *ka* and suffixation of *-i(n)*

	Experience	Activity
	* <i>tyum</i> 'hear' (cf. Xam) <i>ka tyum'in</i> 'listen'	
	<i>ts'inn</i> 'taste'	<i>ka ts'inn'in</i> 'taste intensively'
	<i>khinn</i> 'touch'	<i>ka khinn'in</i> 'touch intensively'
	<i>!qhao</i> 'smell'	<i>ka !qhao kx'ain</i> 'sniff' = P-smell drink

+ N||ng: more ancient N-suffixation of verbs which today are partly attested only as phenomenon verbs

	Experience	Activity	
	<i>t(y)uu</i> 'hear'	<i>t(y)um</i> ? < *tunn	< *tuu + N
or	<i>t(y)uu</i> ? < *tubu	<i>t(y)um</i> ? < *tumu(n)	< *tubu + N
	<i>ts'aa</i> 'taste'	<i>ts'inn</i> ? < *ts'ənn < *ts'ann	< *ts'aa + N
	<i>thaa</i> 'touch'	<i>khinn</i> ? < *thinn < *thənn < *thann	< *thaa + N

3.2 “Vertical neutralization”

+ considerable conflation of perception verbs on the horizontal axis across different senses as an areal phenomenon in southern Africa (Nakagawa 2008)

	Experiencer	Experiencer	Phenomenon	
	Activity	Experience		
Sight	beba	bona	lebeba	
Hearing	reetsa	utlwa	utlwala	
Taste	leka “try”			utlwa
Touch	tswara			
Smell	nkgā or dupa			nkgā

Table 8: Perception verbs of Tswana (Bantu) (Nakagawa 2008)

	Experiencer	Experiencer	Phenomenon
	Activity	Experience	
Sight	múù		'īi
Hearing	kúín		āṁ
Taste			
Touch			
Smell			

Table 9: Perception verbs of G|ui-G||ana (Khoe) (Nakagawa 2008)

+ question of such generic perception verbs in Tuu
 - obvious relevance of sense syncretism in Taa with experience verb *taqM* and phenomenon verb *taqbM* (cf. Table 7), both verbs have a number of grammatical uses (disregarded here)

+ |Xam: several verbs comprising a stem *ta-* and a variable coda with considerable grammatical and lexical versatility
 - similar grammatical uses like Taa *taqM/taqbM* (disregarded here)
 - in lexical use encodes: generic bodily perception (10, 11), multiple-sense perception (12, 13), but also specific senses like touch (14) and smell (15)

- (10) *hi se !haqm ttaan //ang*
 2PRO SUBJ first feel hunger
 that they would first feel hunger (Bleek 1956: 186)
- (11) *he //’uu hi-ng /u ee si ttaan’in hin*
 2DEI fatigue.2 2PRO-THET ? TF 1P.E feel 2PRO
 this fatigue, this is what we feel (Bleek 1956: 188)
- (12) *i g n/e ttaan ha n!oa*
 1P.I ? IPFV feel 1PRO spoor
 we see [?feel] his spoor (Bleek 1956: 184)
 [possibly in terms of sight, touch, and smell simultaneously]
- (13) *au ha doqa ttaan toeta !khoa*
 CONN 1PRO ? feel be.nice:RELV water
 as he felt the water to be pleasant (Bleek 1956: 184)
 [possibly in terms of touch, taste, and smell simultaneously]
- (14) *!’aun ee ttaan seritnn au !’aun taa thi /ari e*
 soil.2 THET feel cold because soil.2 wet COP
 the ground feels cold because it is wet (Bleek 1956: 184)
- (15) *!’aun ee ttang toi /wai*
 soil.2 2REL feel ostrich scent
 dust which smelt of the ostrich’s scent (Bleek 1956: 191)

> plausible hypothesis that a sense-generic perception verb was employed also for specific senses - could indicate that some perceptual experiences are viewed holistically as involving multiple senses simultaneously

4 Towards reconstructing the perception verbs in Tuu

+ on the basis of transparent and reconstructed relations between different perception verbs, possible historical hypothesis of different pre- and proto-stages of Tuu

4.1 N//ng

- experience verbs developed to phenomenon verbs (§3.1.2)
- experience verbs developed to activity verbs by elaboration (§3.1.2)
- activity verbs expand into experience and further into phenomenon verb domain (§2.1)
- *tyhaa* 'feel' could have had a generic non-touch meaning - would motivate semantic genericity of positive non-sight quality verb *tyhaa*'i 'feel/be good'; modern reflex *khinn* 'feel' indeed used in generic body domain (e.g., 'feel thirsty', 'feel cold', 'feel hot')

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience			
Sight	* a _q e	*n aa	(*ku), (?*naa)	* haquka	* xu _i n
Hearing	*tuu-N	*tuu	?	*thaa'i	* qoqa(n)'i
Taste	*ts'aa-N	*ts'aa	*ts'aa		
Touch	*thaa-N	*thaa	*thaa, (?*naa)		
Generic	*thaa-N	*thaa	*thaa		
Smell	*!qhao		* 'aN		

Table 10: Perception verbs of Pre-N//ng (preliminary)

4.2 Proto-!Ui

- more conclusive reconstruction awaits full analysis of |Xam, nevertheless a number of likely reconstructions, in particular a generic verb *tha- 'feel' for bodily and touch perception which could expand also into other sense domains

	Experiencer	Experiencer	Phenomenon
	Activity	Experience	
Sight	-	*n aa	?
Hearing	*tum	*tuu	?
Taste	*ts'a-	*ts'a-	?
Touch	*tha-	*tha-	*tha-
Generic	*tha-	*tha-	*tha-
Smell	*!qhao		* 'aN

Table 11: Perception verbs of Proto-!Ui (preliminary)

4.3 Proto-Tuu

- five possible reconstructions, especially in sight domain - greatest stability?
- possible reconstruction of generic bodily-touch perception verb with a tendency to sense syncretism (sound changes: loss of aspiration in Taa and ?loss of pharyngealization in !Ui)
- numerous empty cells in Table 12 do not necessarily reflect lack of reconstructed forms due to possibility of ancient conflation on both horizontal and vertical axis (e.g. across senses within non-sight quality, across perception verb types within a sense)

	Experiencer	Experiencer	Phenomenon	Positive	Negative
	Activity	Experience			
Sight	?	*n aa	*naa		* xu _i n
Hearing	?	?	?	?	?
Taste	?	*ts'aa	?	?	?
Touch	*thaqa			?	?
Generic				?	?
Smell	?	?	?	?	?

Table 12: Perception verbs of Proto-Tuu

4.4 Preliminary perception verb reconstructions within the Tuu family

Language	Taa	N//ng	Xam	Proto-!Ui	Proto-Tuu
'see'	n aM	n aa	n aa	*n aa	*n aa
'appear'	nabM	n(y)aa	-	?	*naa
'ugly'	xu _i n	xu _i n	-	?	* xu _i n
'hear'	-	tyuu	tuu	*tuu	-
'listen'	-	(ka) tyum('in)	tyum	*tum	-
'taste'	ts'ann kM	ts'aa/ts'inn	ts'am	*ts'aa	*ts'aa
'feel'	taqM	thyaa/khinn	ttaan/ttang~thaan/thang	*tha(q)a	*thaqa
'smell'	-	!qhao	!k(h)aon	*!qhao	-
'smell'	-	'ann, 'ang	'ang	* 'aN	-

Table 13: Possible reconstructions within Tuu in the perception domain

References

- Nakagawa, Hiroshi. 2008. A typologically uncommon feature of the perception verbs of some Khoe languages. Unpublished manuscript
- Viberg, Ake (1984). The verbs of perception: a typological study. In Explanations for language universals. Brian Butterworth, Bernard Comrie, and Osten Dahl (eds.), 123-62. Berlin: Mouton de Gruyter.

Appendix: Template questionnaire for perception verbs

Sight

1 (Sight-A) Peter was looking/looked at the birds

2 (Sight-E) Peter (suddenly) saw the birds

3 (Sight-P) Peter looked happy

4 (Sight-POS) Peter looks/is beautiful

5 (Sight-NEG) Peter looks/is ugly

Hearing

6 (Hear-A) Peter was listening/listened to the radio

7 (Hear-E) Peter (suddenly) heard a lion

8 (Hear-P) Peter sounded sad

9 (Hear-POS) The song sounds/is nice

10 (Hear-NEG) The song sounds/is bad

Touch

11 (Touch-A) Peter felt the cloth (to see how soft it was)

12 (Touch-E) Peter (suddenly) felt a stone under his foot

13 (Touch-P) The cloth/leather felt soft

14 (Touch-POS) The cloth/leather feels/is nice

15 (Touch-NEG) The cloth/leather feels/is bad

Taste

16 (Taste-A) Peter tasted the food (to see if he could eat it)

17 (Taste-E) Peter (suddenly) tasted something in the food

18 (Taste-P) The food tasted of salt

18a Basic adjectives/verbs of taste

sour suur

salty sout

sweet soet

bitter bitter

hot pikant

19 (Taste-POS) The food tastes/is good

20 (Taste-NEG) The food tastes/is bad

Smell

21 (Smell-A) Peter smelled the food (to see if he could eat it)

22 (Smell-E) Peter (suddenly) smelled something in the food

23 (Smell-P) The food smelled of rotten meat

24 (Smell-POS) The food smells/is good

25 (Smell-NEG) The food smells/is bad

Generic (body) feeling/experience

26 (Generic-A) I feel myself becoming ill/getting a headache

27 (Generic-E) Peter (suddenly) felt pain

28 (Generic-P) How do you feel? - I feel weak./My body feels weak

29 (Generic-POS) Peter feels good

30 (Generic-NEG) Peter feels bad

Summary table

	Experiencer Activity	Experiencer Experience	Phenomenon	Positive	Negative
Sight					
Hearing					
Taste					
Touch					
Generic					
Smell					