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## Perception Verbs and Taste Adjectives in Kambaata and Beyond\*

Yvonne Treis

### Introduction

The Ethiopian (or Ethio-Eritrean) sprachbund is a convergence area in which languages from three different families of the Afroasiatic phylum (Semitic, Cushitic and Omotic) and various Nilo-Saharan languages are spoken.<sup>1</sup> The sprachbund is mainly defined by phonological, morphological and syntactic features (for a succinct summary see Crass 2006). The only publications so far that have been concerned with shared lexical features in these languages are Hayward (1991) and (2000). The author discusses data from Amharic (Semitic), Oromo (Cushitic) and Gamo (Omotic) and categorises the shared lexicalisation patterns that he observed into four groups (Hayward 2000: 630 ff.); see the definitions and illustrative examples in (1)-(4). The lexeme triplets of Amharic (A.), Oromo (O.) and Gamo (G.) that are listed by Hayward are exact semantic matches of each other but are usually not cognate.

- (1) Shared semantic specialisations:<sup>2</sup> “[...] most Ethio-Eritrean languages have a single word to express a conceptual distinction that is generally lacking in, say, standard European languages” (Hayward 2000: 631); see, e.g., A. *bäkkätä* – O. *rak’e* – G. *bawutides* ‘die without ritual slaughter (of cattle)’ (ibid.).

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<sup>1</sup> The Nilo-Saharan languages are spoken on the fringes of the assumed convergence area.

<sup>2</sup> The label for group (3) is from Hayward (1991: 150); the labels for the other groups are mine.

- (2) Shared polysemy: “[...] a word with two (or more) senses so distinct that a lexicographer might have difficulty in deciding whether or not to treat it as a case of homophony” (ibid.); see, e.g., A. *k’ädda* – O. *waraabe* – G. *duuk’k’ides* 1. ‘draw water’, 2. ‘copy’ (ibid.).
- (3) Shared derivational pathways: “[...] an exactly equivalent derivational process is employed in forming a word” (ibid.); see, e.g., A. *asfällägä* – O. *barbaachise* – G. *kosshides* ‘need’, which are causative derivatives of the verb ‘want’ in all three languages (Hayward 2000: 632).
- (4) Shared ideophones and idioms: see, e.g., the literal translation of ‘foreign country’ as “a person’s / someone’s country” and of ‘I caught a cold’ as “a cold caught me” in all three languages (ibid.).

Hayward presents a diverse list of semantically matching lexemes from various semantic fields. The present study attempts to pursue the analysis of shared lexicalisation patterns one step further and examines in detail the semantic architecture of two well-defined fields in one selected Ethiopian language. The present contribution intends to shed light on the relationships between the members of the semantic fields of perceptions verbs and taste adjectives/verbs in Kambaata, a Highland East Cushitic language of South Ethiopia.<sup>3</sup> In doing so, I lay the ground for a comparison with related and geographically close languages; preliminary comparative results are discussed in § VII and when dealing with taste adjectives. In the concluding section a package of lexicalisation patterns possibly shared by languages of the Ethiopian sprachbund is presented.

### Perception verbs

Viberg’s (1984) typological survey on perception verbs provides the framework against which the Kambaata data will be considered. In the field of perception, five sense modalities are distinguished: visual, auditory, tactile, gustatory and olfactory perception, or put differently, perception by means of one’s eyes, ears, skin/body, tongue and nose. There are (at least) two relevant semantic roles in a perception event: SOURCE (the experienced entity) and EXPERIENCER (the perceiving entity).

<sup>3</sup> The Kambaata corpus consists of narratives, interviews and elicited data which were collected in the field between 2002 and 2007 as well as written text data from school books (Kambaatissata 1989). The Baskeet data presented below were collected during a fieldtrip in 2008/9.

**Table 1** The basic paradigm of the verbs of perception (adapted from Viberg 1984: 125)

Sense modalities ↓	Activity	Experience	Copulative
Vision	P. <b>looked at</b> the birds.	P. <b>saw</b> the birds.	P. <b>looked</b> happy.
Hearing	P. <b>listened to</b> the birds.	P. <b>heard</b> the birds.	P. <b>sounded</b> happy.
Feeling	P. <b>felt</b> the cloth /to see how soft it was/.	P. <b>felt</b> a stone under his foot.	The cloth <b>felt</b> soft.
Taste	P. <b>tasted</b> the food /to see if he could eat it/.	P. <b>tasted</b> garlic in the food.	The food <b>tasted</b> good / bad / of garlic.
Smell	P. <b>smelled</b> the cigar /to see if he could smoke it/.	P. <b>smelled</b> cigars in the room.	P. <b>smelled</b> good / bad / of cigars.

As shown above, three so-called “dynamic systems” cross-cut the five sense modalities: Viberg labels them “activity”, “experience” and “copulative”. Activities are defined as unbounded processes that are consciously controlled by a human agent. Experiences are defined as uncontrolled states or inchoative achievements. In Viberg’s study, activities and experiences are both considered to be “experienter-based”, i.e. the experiencer is realised as the grammatical subject. Copulative expressions are defined as “source-based” states, with the source realised as the subject. Thus Viberg defines activities, experiences and copulatives by a combination of semantic criteria and grammatical criteria. In the present analysis of Kambaata, I deviate from Viberg’s terminology insofar as I consider perceptive events to be activities or experiences irrespective of the grammatical function of the experiencer and the source, which means that I also consider constructions in which the source is realised as the subject and the experiencer as an adjunct to be experiences if the process is a bound/non-controlled state or achievement. Copulatives are here understood to be expressions of perceptive states or achievements in which the experiencer is not overtly expressed.

Whereas Viberg (1984) is predominately concerned with *i n t r a f i e l d* polysemy, i.e. the polysemy of perception verbs within the physical perception domain, Vanhove (2008) focuses on the *t r a n s f i e l d* polysemy patterns of perception verbs, i.e. the semantic associations between the domain of vision and

hearing (i.e. physical perception) and mental/cognitive perception.<sup>4</sup> Prompted by Viberg’s and Vanhove’s studies, I am interested in the following research questions: 1. Which modalities and which “dynamic systems” are lexically distinguished in Kambaata (and other Ethiopian languages) and what are common intrafield polysemy patterns in Ethiopian languages? 2. Which semantic associations can be discovered between physical perception verbs and verbs of mental/cognitive perception or, put differently, what are the transfield polysemy patterns of perception verbs in Kambaata and beyond?

Kambaata has three basic perception verbs: the verb *xuud-* with its prototypical meanings ‘see, look at’, *maccoo(cc)-* with its prototypical meanings ‘listen, hear’ and *hansuus-* ‘smell’. The following analysis will focus on the polysemy of the visual and the auditory verbs. Due to a lack of data, the use of the olfactory verb cannot be thoroughly investigated.

### I Visual perception

The verb *xuud-* is used, on the one hand, for vision EXPERIENCES, i.e. uncontrolled perception by means of one’s eyes, as illustrated in ex. (5).<sup>5</sup>

<sup>4</sup> The “intrafield” / “transfield” terminology is borrowed from Vanhove (2008), who in turn adopted it from James A. Matisoff.

<sup>5</sup> Note on the Kambaata official orthography (Maatewoos Shagana 1992): The following graphemes are not in accordance with the IPA conventions: <ph> = /pʰ/, <x> = /tʰ/, <q> = /kʰ/, <j> = /dʒ/, <c> = /tʃ/, <ch> = /tʃ/, <sh> = /ʃ/, <y> = /j/ and <ʔ> = /ʔ/. Length is indicated by double letters, e.g. <aa> = /aː/, <bb> = /bː/ and <shsh> = /ʃː/. The second consonant of a glottal stop-sonorant cluster is generally written as double, although the cluster only consists of two phonemes, e.g. <mm> = /ʔm/. Word-final unaccented /i/ is not written in the orthography, irrespective of its phonological status. Accents have here been added to examples from written sources. The following abbreviations are used in the glosses: AAM proprietive derivation, ABL ablative, ACC accusative, ASSOC associative, BEC reason clause, CAUS causative, CNV converb, COND conditional clause, COP copula, CRD coordination, DAT dative, DDEM demonstrative attribute, DEC declarative, DEF definiteness, DEM demonstrative, DS different subject, F feminine, GA similative, GEN genitive, HON honorific / impersonal, ICO imperfective converb, ICP instrumental-comitative-perlative, IMP imperative, IPV imperfective, K1-8 Kambaatissata (1989: grade 1-8), L linker, LOC locative, M masculine, MID middle, N unanalyzed pragmatic morpheme, NCO negative converb, NEG negation, NIPV non-imperfective, NMZ nominaliser, NOM nominative, NREL negative relative, OBJ object pronoun, OBL oblique case, PASS passive, PCO perfective converb, PFV perfective, PL plural, POSS possessive, PRED predicate case, PROG progressive, PRV preventive, PURP same subject purposive, PVE *e*-perfective, PVO *o*-perfective, Q interrogative, RA nominaliser, REL relative clause, SG singular, SS same subject, TV terminal vowel, UNTA different subject purposive, VOC vocative.

- (5) *fí* *béet-o* *lank-fí* *kánn* *haqq-í*  
 1SG.GEN son-M.VOC second-M.DAT DDEM1.M.OBL tree-M.GEN  
*al-í* *ful-táni-yan* ***xuud***-*ókkoon-ke*  
 top-M.ACC climb-2SG.ICO-DS see-1SG.PRV-2SG.OBJ  
 ‘My son, don’t let me see a second time that you climb this tree!’ (K4: 45)

On the other hand, the verb *xuud-* is used for vision ACTIVITIES, i.e. consciously controlled unbounded processes of looking at/on/in something, looking up something or watching something; consider ex. (6)-(8).

- (6) *ta* *harr-íta* *ku* *got-fíchch-u*  
 DDEM1.F.ACC donkeys-F.ACC DDEM1.M.NOM hyenas-SG-M.NOM  
*hitt-íta* *y-í* *xa’mm-ee’fí* *maccoo-tóo*  
 like\_this-F.ACC say-3M.PCO ask-3F.PVE.REL.NMZ1.M.ACC hear-3F.PVO.REL  
*j-áata* *hilíq-q* *uull-áta* ***xuud***-*dóo’u*  
 time-F.ACC get\_a\_shock-3F.PCO ground-F.ACC see-3F.PVO  
 ‘When the donkeys had heard the hyenas asking in this way, they were shocked and looked on the ground.’ (K4: 34)
- (7) [...] *mát-e* *laag-á* *hiiranch-á* *laag-á* *doonn-ó*  
 one-F.OBL word-F.GEN translation-M.ACC word-F.GEN list-F.GEN  
*maxaaf-í* *aaz-éen* ***xuud***-*fí* *has-seentá=da* [...]  
 book-M.GEN inside-M.LOC see-M.DAT want-2PL.PVE.REL=COND  
 ‘[...] if you want to look up the translation of a word in a dictionary [...].’  
 (K3: 46)
- (8) *sang-á* *ichch-óo-hu* *sá’mm y-í*  
 ox\_for\_beef-M.ACC eat-3M.PVO.REL.NMZ1-M.NOM simply say-3M.PCO  
***xuud***-*áno* *san-úta* *ichch-óo-hu*  
 look-3M.IPV nose-F.ACC eat-3M.PVO.REL.NMZ1-M.NOM  
*sá’mm y-í* *guff-áno*  
 simply say-3M.PCO dance-3M.IPV  
 ‘The one who eats the (biggest part of the) ox just watches, the one who eats the nose (of the ox) just dances.’ (Proverb)

The causative derivation of *xuud-* ‘see, look at’ → *xuud-is-* ‘cause to see, cause to look at’ is the most common way to express ‘show, indicate, point out’, as exemplified in ex. (9). Alternatively, the underived verb *malah-* ‘show’ can be used.

- (9) [...] *xíssh* *a’-éen* *usur-éenunta* *ang-áan-ta-se*  
 tie\_well do-3HON.PCO tie-3HON.UNTA hand-F.ICP-L-3F.POSS  
*gurd-itán* ***xuud-is***-*sóo’u*  
 knot-3F.PCO see-CAUS1-3F.PVO  
 ‘[...] with her hand she made an (imagined) knot (in the air) and showed (him) to tie (the sack) well.’ (K4: 78)

Apart from the general verb *xuud-* ‘see, look at’, Kambaata has various semantically more specific ‘see’ verbs; see, e.g., *asi’mm-* ‘see in a distance’, *la’-* ‘look at something intensively’, *raabbat-* ‘look at something intensively’, *túkk y-* ‘look into someone’s eyes’, *geeq-* ‘stare’, *illa-* ‘look at something in passing, while walking around’, *taazab-* ‘watch someone secretly’.

Whereas *xuud-* has both an activity and an experience reading, the source-based verb *lall-* ‘occur, appear, be seen, be visible’ signals a visual EXPERIENCE in an unambiguous way. The verb takes the perceived entity as its subject and requires the non-controlling experiencer to be expressed by a dative NP or by an object suffix.<sup>6</sup>

- (10) *kí* *xée’nn-u* ***lall-ée-****e*  
 2SG.GEN use-M.NOM occur-3M.PVE-1SG.OBJ  
 ‘I have seen how useful you are.’ (lit. ‘Your use has occurred to me.’)

<sup>6</sup> The expression of the experiencer is not obligatory; see the imperative *lall-itóot* 2SG.IMP ‘Don’t let (anybody) see you again!’.

## II Auditory perception

The verb *maccoo(cc)*- ‘hear, listen to’ displays the same experience-activity polysemy as the verb *xuud*- ‘see, look at’. Ex. (11) illustrates the use of *maccoo(cc)*- for the expression of a perceptual EXPERIENCE.<sup>7</sup>

- (11) *urr-úta qocc-eenáni-yan maccooc-éemm*  
 door-F.ACC knock-3HON.ICO-DS hear-1SG.PVE  
 ‘I heard him (HON) knocking at the door.’  
 (lit. ‘He (HON) knocked at the door (and) I heard it.’)

The use of *maccoo(cc)*- for the expression of a perceptual ACTIVITY is shown in ex. (12).

- (12) *m-áan macc-áta uuji-ít maccoo-táyyoont?*  
 what-M.LOC ear-F.ACC drop-2SG.PCO listen-2SG.PROG  
 ‘On what are you eavesdropping (lit. “dropping the ears (to) listen”)?’

Apart from the semantically general hearing verb *maccoo(cc)*- ‘hear, listen to’, Kambaata has a hearing verb *gons*- ‘listen to’ which only expresses auditory activities; see ex. (13). The use of the semantically even more specialised activity verb *caqas*- ‘listen secretly / without being detected, eavesdrop’ is shown in ex. (14). Also consider the idiomatic expression in ex. (15) for a hearing EXPERIENCE, in which not the human experiencer but the perceptual organ is made the subject of the clause.

- (13) *gons-iyyé án shalál-a=gg-a-n*  
 listen-2PL.IMP 1SG.NOM easy-M.OBL=GA-M.OBL-N  
*aag-icc-iteenantá=g-a ass-áamm*  
 enter-CAUS1.MID-2PL.IPV.REL=GA-M.OBL do-1SG.IPV  
 ‘Listen, I will make you understand it easily.’ (K3: 46)

<sup>7</sup> The verb ‘listen, hear’ has two stems, *maccooc-* and *maccoo-*, the shorter of which is only used in combination with *t*-initial inflectional suffixes; see, e.g., *-táyyoont* 2SG.PROG in ex. (12).

- (14) *hannó már y-itáa=r-a caqás*  
 please go.2SG.IMP say-3F.IPV.REL=RA-M.ACC listen\_secretly.2SG.IMP  
 ‘Please, go (there) (and) listen secretly to what they are saying!’
- (15) *mácc-at qakkichch-únka ít-tee’u*  
 ear-F.NOM tiny-M.ACC<N> eat-3F.PVE  
 ‘The ear has overheard (lit. “eaten”) a tiny bit.’

Perception verbs such as *xuud*- ‘see, look at’ and *maccoo(cc)*- ‘hear, listen to’ do not often govern object complement clauses (which would be marked by the enclitic =*ga*-morpheme)<sup>8</sup> but what is seen or heard is expressed in a preceding imperfective converb clause; see ex. (5) and (11) above. The imperfective converb indicates simultaneity between the event of the converb clause and the main clause. The converb in such constructions is a DS-form (see glosses), because the subject of the perceived event expressed in the converb clause and the subject of the perception event in the main clause have different referents.

The verbs *xuud*- ‘see, look at’ and *maccoo(cc)*- ‘hear, listen to’ are not restricted to the sense modalities of perception by means of one’s eyes and of one’s ears but they are also used for other sense modalities. These intrafield semantic extensions are addressed below.

## III Tactile perception

Kambaata does not have a separate verb ‘feel’. EXPERIENCES by means of one’s skin/body are expressed with the extended verb *maccooc-am-*, which is a passive derivative of the verb ‘hear, listen to’.<sup>9</sup> Whereas in all the examples presented so far, the human experiencer was encoded as the subject of the perception verb and the source as the direct accusative-marked object, the expression of ‘feel’ requires that the source functions as the subject of the passive verb and the human experiencer as an object suffix<sup>10</sup> on the verb or as a dative argument (if it is expressed in an independent (pro)noun phrase).<sup>11</sup>

<sup>8</sup> With perception verbs, =*ga*-marked object complement clauses are not ungrammatical but they are much less common and often interpreted as statements about how something is done.

<sup>9</sup> The passive morpheme *-am* is realised as *-an* when preceding an alveolar consonant; see ex. (16).

<sup>10</sup> Object suffixes can refer to or substitute for accusative, dative, ablative, ICP and locative arguments (Treis 2008: 345f). On the verb ‘feel’ the object suffix replaces a dative NP.

<sup>11</sup> Apart from experiencers, the dative case marks recipients and beneficiaries (Treis 2008: 119f).

- (16) qás-ut                    **maccoocc-án-tee-’e**  
 stabbing\_pain-F.NOM hear-PASS-3F.PVE-1SG.OBJ  
 ‘I felt stabbing pain.’ (lit. “Stabbing pain was heard for/to me.”)
- (17) [...] móos-u-s                    aff-o-ssá                    mánn-u  
 illness-M.NOM-3M.POSS seize-3M.PVO-3PL.OBJ.REL    people-M.NOM  
 bub-bóo=da                    mexx-u=ṛ-úu  
 burn-3F.PVO.REL=COND    single-M.NOM=RA-M.NOM.CRD1  
**maccoocc-am-áno-ssa-ba’ a**  
 hear-PASS-3M.IPV-3PL.OBJ-NEG  
 ‘[...] if (leprosy) patients burn (themselves), they don’t feel anything (lit. “something is not heard to/for them”).’ (K8: 49)

The sources, ‘stabbing pain’ in ex. (16) and ‘something’ in ex. (17), are the subjects of the passive verb ‘feel’ and control the subject agreement, whereas the experiencers are encoded by object suffixes (-’e in ex. (16) and -ssa in ex. (17)) on the verb. If the experiencer were to be stressed it could be encoded by an independent dative pronoun *esáa* ‘for/to me’ 1SG.DAT in ex. (16). Agents of passive constructions are not encoded by object pronouns on the verb or in dative phrases but in instrumental-comitative-perlative (ICP) phrases, if expressed overtly at all (see, e.g., *jarmín* in ex. (19)). Therefore, the literal translation of ex. (16)-(17) must be “heard for/to experiencer” but not “heard by experiencer”.

Not every passive form of ‘hear’ has to be interpreted as ‘feel’, as the verb *maccoocc-am-* ‘be heard’ in ex. (18) shows.<sup>12</sup>

- (18) [...] laag-á-s                    xóqq y-ít                    hor-á=bb-ánka  
 voice-M.ACC-3M.POSS rise    say-3F.PCO all-M.ACC=PLACE-M.ACC<N>  
**maccoocc-an-táa=g-a**                    ass-í                    [...]  
 hear-PASS-3F.IPV.REL=GA-M.OBL    do-3M.PCO  
 ‘He raised his voice (and) made (it) be heard everywhere [...].’

<sup>12</sup> Although the passive verbs ‘be heard’ and ‘feel’ are morphologically identical, Amberber (2001) shows that they have distinct (morpho-)syntactic properties in Amharic; see, e.g., that ‘feel’ requires the experiencer to be expressed by an object suffix, whereas this suffix is optional with ‘be heard’. The same is probably also true in Kambaata.

The source of a feeling is not necessarily expressed by a noun (as in ex. (16)), it can also be expressed by an imperfective converb clause (19) or by a subject complement clause (20).<sup>13</sup> The respective subordinate clauses are marked by square brackets below.

- (19) luquc-ó                    jarm-fin                    kolb-ámm-ee                    wo’-á  
 typhoid-F.GEN    germs-M.ICP    contaminate-PASS-3M.PVE.REL    water-M.ACC  
 angaammí                    j-áata                    [hill-ée-nne                    buss-áni-yan]  
 drink.1PL.IPV.REL    time-F.ACC    intestine-F.ACC-1PL.POSS    burn-3M.ICO-DS  
**maccoocc-am-áno-nne**  
 hear-PASS-3M.IPV-1PL.OBJ  
 ‘When we drink water that is contaminated by typhoid-germs, we feel that they burn our intestines (lit. “they burn our intestines (and) (it) is heard for/to us”).’ (K4: 8)
- (20) [wó’-u-s                    caal-á                    ikk-ó=g-u]  
 water-M.NOM-3M.POSS    cold-M.ACC    become-3F.PVO.REL=GA-M.NOM  
**maccoocc-ámm-o-s**  
 hear-PASS-3M.PVO-3M.OBJ  
 ‘He felt that the water was cold.’ (lit. “That the water was cold was heard for/to him.”)

The passive form of the ‘hear’ verb is used only in constructions expressing feeling EXPERIENCES. Feeling ACTIVITIES, i.e. consciously controlled events of feeling (e.g. in a sentence like “Peter felt the cloth”, test frame: /to see how soft it was/ (Viberg 1984:125)) are expressed, among others, through multi-lexemic constructions headed by the vision verb *xuud-* ‘see, look at’. The multi-verb construction expressing ‘feel (actively)’ in ex. (21) consists of the converb form of *af-* ‘seize’ and the superordinate verb *xuud-* ‘see, look at’ and means literally “seize (and) see”. In ex. (22), the converb form of *táff a’-* ‘seize’ combines with the superordinate verb *xuud-* ‘see, look at’.

<sup>13</sup> Nothing can be said so far about which strategy is more common.

- (21) [...] koot-i-sí kiis-á áff **xuud-anó=da**  
 coat-M.GEN-3M.POSS pocket-M.ACC seize.3M.PCO see-3M.IPV.REL=COND  
 gízz-u ag-ámm fájji-yan [...]  
 money-M.NOM drink-PASS.3M.PCO do\_completely.3M.PCO-DS  
 ‘[...] when he felt the pocket of his coat, (he noticed that) the money had  
 all been stolen (lit. “drunk”) [...].’
- (22) táff a’-i-nū **xuud-im-bá’a**  
 seize do-1SG.PCO-L.CRD1 see-1SG.NIPV-NEG  
 ‘I did not even touch (lit. “seize (and) see”) (it).’

#### IV Gustatory perception

In analogy to the verbalisation of tactile experiences (as described in § III), the source of a taste EXPERIENCE is also encoded as the subject of the passive verb ‘hear’, *maccooc-am-* ‘taste’ (lit. “be heard”). The experiencer of the gustatory experience is realised as an object suffix on the verb, as shown in ex. (23), or as an independent dative (pronoun) phrase.

- (23) xée’nn-u **maccooc-ámm-ee-’e**  
 taste-M.NOM **hear-PASS-3M.PVE-1SG.OBJ**  
 ‘I tasted the taste.’ (lit. “The taste was heard to me.”)

Stating that a (certain) taste is tasted (lit. “heard”) is definitely not a common way to express one’s taste experience in Kambaata. Usually, statements about taste experiences are evaluative statements: instead of saying ‘I taste garlic in the soup’, one rather says ‘the garlic in the soup is tasteful’ or ‘the garlic is not tasteful’ (see the section on taste adjectives below).

There is no non-borrowed mono-lexemic translational equivalent ‘taste (actively)’ in Kambaata. During elicitation, consultants usually provide the loan word *qammas-*, related to Amharic *qämmäsä*. In Hudson’s Highland East Cushitic Dictionary (1989), the Amharic loan *k’mmas-* is also provided as the translational equivalent of ‘taste’ in the wordlists of various languages closely related to Kambaata. Furthermore, *k’ammassú* ‘taste’ is found in the Alaaba word list of Schneider-Blum (2007: 482). The analysis of Kambaata texts reveals that the only way to express a tasting a c t i v i t y, such as in the sentence “Peter tasted the food” (Test frame: /to see if he could eat it/), is by a multi-lexemic construction

which is headed by the verb *xuud-* ‘see, look at’ and which includes a converb form of the verbs ‘pierce’, ‘sip’, ‘bite off a tiny piece’ etc. A non-exhaustive list of multi-lexemic ‘taste’ constructions is given in ex. (24). There is no fixed verb-verb combination for the expression of ‘taste (actively)’; however, consultants considered *qas-éen xuud-* ‘pierce (and) see’ as the most appropriate translation.

- (24) qas-éen xuud- ‘taste (actively)’ = “pierce (and) see”  
 arrabéen qas-éen xuud- ‘taste (actively)’ = “pierce with the tongue (and) see”  
 gubb-éen xuud- ‘taste (actively)’ = “take a sip (and) see”  
 qoxx-éen xuud- ‘taste (actively)’ = “take a mouthful (and) see”  
 qánx a’-éen xuud- ‘taste (actively)’ = “bite off a little bit with the front teeth (and) see”

Ex. (25) describes a tasting activity as “sip (and) see”, ex. (26) as “bite and see”.

- (25) sakkí bar-í **gubb-éen xuud-éenno**  
 third day-M.ACC sip-3HON.PCO see-3HON.IPV  
 ‘One tastes (the beer) on the third day.’
- (26) mutaatt-íchch-u ha’mm-íchch-í weeshsh-ú buqqíshsh  
 porcupines-SG-M.NOM corms-SG-M.GEN enset.SG-M.ACC uproot.3M.PCO  
 agúrr ikkodáa xább a’-í hangag-u’nnáan xall-á  
 leave.3M.PCO but properly do-3M.PCO gnaw-3M.NCO only-M.ACC  
**ga’mm-an-s-í ga’mm-an-s-í xúujj**  
 bite-PASS-CAUS1-3M.PCO bite-PASS-CAUS1-3M.PCO see.3M.PCO  
 agúrr agúrr uuji-í oroqq-é’e’u  
 leave.3M.PCO leave.3M.PCO drop-3M.PCO leave-3M.PVE  
 ‘The porcupine uprooted the enset plant, but it did not eat up the corm, it only **bit (into it) here and there, bit (into it) here and there, tasted** (lit. “saw”) (it), dropped (it) (and) went away.’

The converbs that precede *xuud-* ‘see, look at’ and specify how knowledge about the taste was gained (namely by piercing, sipping etc.) are not obligatory, as the

first occurrence of *xuud-* in ex. (27) is meant to show. In an appropriate context, the verb *xuud-* ‘see, look at’ alone is sufficient to express a tasting activity.

- (27) [...] maxín-it wor-án-tee ag-eennó=r-a  
 salt-F.NOM add-PASS-3F.PVE drink-3HON.IPV.REL=RA-M.ACC  
 ikk-ée=da [...] **xuud**-eenóta has-eem máachch  
 be\_enough-3M.PVE.REL=COND see-3HON.PURP want-3HON.PVE.REL.ABL  
 hikkán ag-eenno-sí=r-fíchch  
 DDEM2.M.OBL drink-3HON.IPV-3M.OBJ.REL=RA-M.ABL  
 qah-únka mát-e od-áan aaqq-éen  
 small-M.ACC<N> one-F.OBL utensil-F.LOC take-3HON.PCO  
 agur-éen **gubb-éen** **xuud**-éenno  
 leave-3HON.PCO sip-3HON.PCO see-3HON.IPV

‘If one wants to **taste** (lit. “see”) whether there is enough salt in the drink, one takes a little bit from this drink with a tool (i.e. spoon), **sips (it) (and) tastes** (lit. “sees”) (it).

### V Olfactory perception

Analogous to the domains of vision and hearing, activities and experiences do not seem to be distinguished in the olfactory domain, at least as far as one can tell from the sporadic utterances about smelling in the available corpus. In ex. (28), the verb *hansuus-* ‘smell (vt)’ is used for an EXPERIENCE.

- (28) boban-áta **hansúushsh**-eemm  
 bad\_smell-ACC smell-1SG.PVE  
 ‘I smelled a bad smell.’

The translations of the substitutes of *hansuus-* ‘smell’ in the avoidance register (*ballishsháta*) of married women in ex. (29) indicate that the verb can also be used in an ACTIVITY sense.

- (29) possible substitutes for *hansuus-* ‘smell’ in the avoidance register:  
*fíxx a’-* ‘take a sniff of something’, *akka’-* ‘inhale’ or *guba’-* ‘inhale’

In the closely related language Alaaba, the cognate verb is also attested with an ACTIVITY interpretation; see ex. (30).<sup>14</sup>

- (30) tuhaan-á sh-ee-húu, ?ang-ás(i)  
 bug-M.ACC kill-3M.PVE.REL-M.NOM.CRD1 hand-F.ACC.3M.POSS  
**hansuus-án(o)**  
 smell-3M.IPV  
 ‘The one who killed a bug also smells his hand.’ (Proverb)  
 (Schneider-Blum 2007: 217)

There are various other strategies to express olfactory experiences in Kambaata. Utterances describing INTENSE EXPERIENCES may contain the lexeme *ag-* ‘drink’; see the negative experience in ex. (31) and the positive experience in ex. (32).

- (31) caa`mm-áachch fooshsh-á **ag-éenno**  
 shoe-M.ABL smell-M.ACC drink-3HON.IPV  
 ‘One smells a bad smell from the shoes.’ (lit. “Smell is drunk from shoes.”)  
 (32) xiniinúta ag- ‘perceive (lit. “drink”) the smell of roasted meat’  
 xirinná ag- ‘perceive (lit. “drink”) the musk of the civet cat’

Like in the gustatory domain, olfactory experiences are, more often than not, evaluative statements without perception verbs; in such statements, the lexemes *anj-* ‘smell (vi) good’ and *bob-* ‘smell (vi) bad’ are common. The nouns *anjanáta* ‘good smell, fragrance; spices’ and *bobáta* ~ *bobanáta* ‘bad smell, stench’ are based on these verbs. Ex. (33) expresses a positive, ex. (34) a negative experience. The polysemous verb *fooshsh-eeh-* ‘breathe; smell’ and the base noun *fooshshá* ‘breath; smell’ also tend to convey a negative experience. Apart from these rather general ‘smell (vi)’ verbs, Kambaata has specialised verbs such as *toonm-* ‘smell (vi) burnt’. Note that the human experiencer/perceiver is usually not expressed overtly in constructions with these source-based olfactory verbs.

<sup>14</sup> I have adjusted the glossing of the Alaaba data to the glossing of the Kambaata data.



- (33) tumbéechch-u            **anj-áno**  
tobacco.SG-M.NOM    smell\_good-3M.IPV  
‘The tobacco smells good.’
- (34) máz-a-s                    shán-t                    **bob-báyyoo’u**  
wound-F.NOM-3M.POSS    infect-3F.PCO    smell\_bad-3F.PROG  
‘The wound is infected and smells bad.’
- (35) [...] af-óo-nne            danáamoga    guncuucc-inúmb-o=ddáa  
          mouth-F.ACC-1PL.POSS    well            rinse-1PL.NREL-M.OBL=COND.CRD1  
  
inq-ú-nne            [...]    miiq-aqq-inúmb-o=ddáa  
tooth-F.ACC-1PL.POSS    brush-MID-1PL.NREL-M.OBL=COND.CRD1  
  
af-óo-nne                    **foohsheeh-fí**    dand-áno  
mouth-F.ACC-1PL.POSS    breathe-M.DAT    can-3M.IPV  
‘[...] if we don’t rinse our mouth well and if don’t brush our teeth [...], our mouth may smell bad.’ (K4: 118)

## VI Intrafield and transfield polysemy of ‘see’ and ‘hear’ verbs

Vision and hearing are clearly lexicalised as distinct concepts in Kambaata (the same may be true in the modality of smell). There is no lexical differentiation of activities and experiences in the domain of vision and hearing (and, probably, also not in the domain of smelling).

**Table 2** Perception verbs in Kambaata<sup>15</sup>

Sense Modalities ↓	Activity	Experience
Vision	SEE	SEE
Hearing	HEAR	HEAR
Feeling	SEE	HEAR-Pass
Taste	SEE	HEAR-Pass
Smell	SMELL	SMELL

<sup>15</sup> Copulatives do not occur in the table. The verb *lall-* ‘occur, be seen’ and the evaluative ‘smell (vi) good/bad’ verbs (§ V) and ‘have a (certain) taste’ verbs (see section on taste expression below) probably come closest to what Viberg understands to be “copulatives”. Note, however, that the experiencer can (optionally) be encoded on all these verbs.

In the domains of feeling and taste the distinction between activities and experiences is crucial: the verb *xuud-* ‘see, look at’ is used (mostly in multi-verb constructions) for the expression of activities in these domains, while the verb *maccoo(cc)-* ‘hear, listen to’ is employed for the expression of uncontrolled tactile and gustatory experiences. This means, outside the domain of vision, *xuud-* ‘see, look at’ is associated with *controlled, deliberate* perception. The verb *maccoo(cc)-* ‘hear, listen to’ is associated with *uncontrolled* perception outside the domain of hearing. Apart from this, there is indirect evidence that even in the domain of vision and hearing itself the *ACTIVITY* interpretation of the verb *xuud-* ‘see, look at’ and the *EXPERIENCE* interpretation of *maccoo(cc)-* ‘hear, listen to’ is more prominent. Apart from specialised seeing and hearing verbs, Kambaata has another semantically quite general verb *lall-* ‘occur’ which is used to express a visual *EXPERIENCE* unambiguously (see § I) and a verb *gons-* ‘listen to’ (see § II) to express an auditory *ACTIVITY* unambiguously and one could argue that these verbs are needed because the dominant interpretation of *xuud-* is the controlled ‘look at’ and the dominant interpretation of *maccoo(cc)-* is the uncontrolled ‘hear’.

Apart from the polysemy of *xuud-* ‘see, look at’ and *maccoo(cc)-* ‘hear, listen to’ within the semantic field of physical perception (intrafield polysemy) demonstrated so far, transfield polysemies of these verbs are also attested and will be discussed in the following section.

- ‘see, look at’ → ‘check, examine’

The text corpus uncovers that the verb *xuud-* ‘see, look at’ is often used to express that knowledge is acquired actively or that evidence is requested or looked for by a controlling agent, irrespective of the sensory organs involved in this process. An appropriate translation for *xuud-* in these contexts is ‘check’ or ‘examine’; consider ex. (36).

- (36) [...] sarb-éen                    aakiim-í            min-í            mar-éen  
          do\_quickly-3HON.PCO    doctor-M.GEN    house-M.ACC    go-3HON.PCO  
  
**xuud-ám-u**                    xúm-a-a  
see-PASS-M.NOM    good-M.PRED-M.COP2

‘[If we have stepped into a nail or a thorn or cut ourselves with a metal instrument, we might get tetanus. Therefore,] it is good to go to the hospital quickly (and) be examined (lit. “seen”).’ (K4: 119)

- ‘see, look at’ → ‘consider, take into account’

The vision verb *xuud-* ‘see, look at’ is also used in the sense of ‘consider, take into account’, i.e. the verb can be used for cognitive processes, as shown in ex. (37)-(38).

- (37) gat-é            kaashsh-á            kaas-fíchch    bír-e            **xúud-u**  
 garden-F.GEN plant-M.ACC    plant-M.ABL before-F.OBL    see-M.NOM  
 hasis-anó            duuh-áakk-at            hakkarro’-óo-taa-n?  
 be\_necessary-3M.IPV.REL condition-PL2-F.NOM which.M.PL-ASSOC.F.PRED-F.COP2-Q  
 ‘Before planting the plants, which (economic/environmental) conditions does one have to consider?’ (K8: 10)

- (38) hór-unku            gag-á-s            qotar-á            ass-aqq-í            **xuud-áno**  
 all-M.NOM<N> self-3M.ACC-3M.POSS clever-M.ACC do-MID-3M.PCO see-3M.IPV  
 ‘Everybody considers himself/herself clever.’

- ‘see, look at’ → ‘realise, understand, (come to) know’

Unlike in many other languages (see Vanhove 2008), the use of the general ‘see’ verb for ‘realise, understand, know’ is uncommon in Kambaata, only a few examples are attested in the corpus; consider the verb *xuud-* ‘see, look at’ in ex. (39) and the verb *lall-* ‘occur, appear, be seen, be(come) visible’ in ex. (40). Note that in both constructions the experiencer is not encoded as the subject of the perception verb. The pronoun *-e* 1SG.OBJ refers to the experiencer on the passivised verb in ex. (39); the pronoun *-s* 3M.OBJ in ex. (40) is found on the verb negating the intransitive *lall-* ‘occur’. Both pronouns refer to an indirect (dative) object.

- (39) hujantoommí=r-u            kaa’ll-áno-a=gg-a  
 work.1PL.PVO.REL=RA-M.NOM help-3M.IPV.REL-M.COP2=GA-M.PRED  
**xuud-ám-ano-’ée-hu**  
 see-PASS-3M.IPV-1SG.OBJ.NMZ1-M.NOM  
 ‘I realise (lit. “it is seen to/for me”) that what we did is useful.’

- (40) [...] hatt-íta            ass-éen            soh-eennó=g-u  
 how-F.ACC do-3HON.PCO send-3HON.IPV.REL=GA-M.NOM

**láll-u**            hóogg-o-s  
 occur-M.NOM not\_do-3M.PVO-3M.OBJ

‘[...] he did not know (lit. “(it) did not occur to/for him”) how to send it.’ (K2: 107)

Much more common than the use of the perception verbs *xuud-* or *lall-* to express ‘know’ is the use of the polysemous verb *dag-* ‘find; (come to) know’.

- ‘see, look at’ → ‘visit’

Apart from *xa’mm-* ‘ask’, the verb *xuud-* ‘see, look at’ is commonly used to express ‘visit’; see ex. (41).

- (41) hiz-óo-’e            xijj-ó=tannée  
 brother-M.NOM-1SG.POSS become\_sick-3M.PVO.REL=BEC

**xuud-fi**            márr-eemm  
 see-M.DAT go-1SG.PVE

‘Because my brother was sick, I went to visit him.’

- ‘see, look at’ / ‘hear, listen to’ → ‘experience (emotionally)

Emotional experiences can be expressed by means of *xuud-* ‘look, see’ or *maccó(cc)-* ‘hear, listen to’, e.g. *boorashsháta maccó(cc)-* ‘feel bored’ (lit. ‘hear boredom’) and *gooríta xuud-* ‘experience joy’ (lit. ‘see joy’).

- ‘hear’ → ‘heed, obey’

The use of the hearing verb is extended to the domain of “internal reception” (Vanhove 2008). Apart from the use of the Amharic loan *azzaz-am-* ‘be ordered; obey’, the only way to express ‘heed, obey’ in Kambaata is through the use of the hearing verb; consider ex. (42).

- (42) wól-o        mann-í        sazan-áta        **maccoocc**-fi has-áno-ba`a  
 other-M.OBL people-M.GEN advice-F.ACC hear-M.DAT want-3M.IPV-NEG  
 ‘He does not want to heed other people’s advice.’

- ‘hear’ → ‘understand (a language)’

As in many Ethiopian languages, understanding is expressed in Kambaata as the entrance of a fact for the benefit of the experiencer. The experiencer is either encoded by an object pronoun on the verb *aag-* ‘enter’, as *-he* in ex. (43), or by an independent dative noun phrase. The auditory perception verb *maccoo(cc)-* ‘hear, listen to’ is only used to express a specific type of understanding, namely understanding a language; see ex. (44).<sup>16</sup>

- (43) **áagg**-ee-he-ndo        y-am-án-t        xa`mm-an-taantí  
 enter-3M.PVE-2SG.OBJ-Q say-PASS-PASS-2SG.PCO ask-PASS-2SG.IPV.REL  
 j-áata [...]        time-F.ACC  
 ‘When you are asked whether you understood (it) (lit. “whether (it) entered for you”) [...].’ (Maatewoos Shagana 1992: 11)

- (44) Kambaatiss-áta        **maccoo**-tán?  
 Kambaata\_language-F.ACC hear-2SG.ICO  
 ‘Do you understand (lit. “hear”) the Kambaata language?’

The presented data provide some (but no compelling) evidence for the primacy of vision (rather than hearing) over other sense modalities in Kambaata. In the semantic field of physical perception, the vision and the hearing verbs are both used for other modalities (feeling, tasting). However, the extended uses of the hearing verb are associated with its derived (passive) form, while the seeing verb is used for other modalities without requiring additional morphology. Furthermore, it

<sup>16</sup> Unlike in many languages studied by Vanhove (2008), the semantic associations between ‘hear’ or ‘see’ and ‘understand’ are only marginal and verbs of ‘prehension’, i.e. ‘take’, ‘seize’ and ‘grasp’ are, to the best of my knowledge, not used to express ‘understand’ in Kambaata (and possibly neither in many other Ethiopian languages).

seems that the transfield semantic associations of ‘see’ outnumber those of ‘hear’ (but more data is definitely necessary to substantiate this claim.).<sup>17</sup>

## VII Perception verbs in other Ethiopian languages

The intrafield and transfield polysemies of seeing and hearing verbs described for Kambaata above are also attested in other genetically related and/or geographically adjacent languages, at least as far as I can tell from a cursory overview of the available sources. In the following section, examples from Semitic (S), Cushitic (C) and Omotic (O) languages are provided.

### a) ‘See’ in other Ethiopian languages

None of the other meanings attributed to the Kambaata visual perception verb *xuud-* in § VI above seem to be unique in the Ethiopian context. Most Ethiopian languages apply the same verb for visual experiences and visual activities; see, e.g., Amharic (S) *ayyā* ‘see, look at’ (Kane 1990b: 1282), Wolaitta (O) *be?* ‘see, look at’ (Lamberti and Sottile 1997: 312) and Gedeo (C) *uud-* ‘see, look at’ (Hudson 1989: 382), to name but a few. Like Kambaata, various languages are attested to use ‘see’ in the sense of ‘check’; see, e.g., Amharic (S) *ayyā* ‘test, check’ (Kane 1990b: 1282) and Sidaama (C) *la’-* ‘check’ (Kawachi 2007a: 256). In addition, the use of the visual perception verb for ‘visit’ seems to be widespread; see, e.g., the vision verb *la’u* in Alaaba (C) (Schneider-Blum 2007: 443), *mo(o)’-* in Hadiyya (C) (Hudson 1989: 94), *yef-/yij-* in Dime (O) (Mulugeta Seyoum 2008: 194) and *bekk’-* in Baskeet (O). The use of the ‘see’ verb for ‘experience emotionally’ in Kambaata is parallel to that of Amharic *ayyā* ‘experience (suffering, hardship)’ (Kane 1990b: 1282) as in *mākārawan ayyā* ‘be distressed, miserable’ (lit. “see the distress, misfortune”) (Amberber 2001: 59). Furthermore, a diachronic relation between ‘see’ and ‘know’ is attested in Highland East Cushitic: the Hadiyya verb *la’-* ‘know’ (Hudson 1989: 290) is cognate with the ‘see’ verbs in closely related languages (e.g. Alaaba and Sidaama; see above).

In the Omotic language Baskeet, active tasting (45) and feeling (46) are also expressed in multi-lexemic constructions including the visual perception verb *bekk’-* ‘see, look at’; consider ex. (45)-(46) and compare them with ex. (21)-(22) and ex. (25)-(27) in Kambaata.

<sup>17</sup> In translated texts (e.g. in Kambaata school books) the deverbal action/event noun *maccooccishshāta*, based on the causative *maccoocc-is-* ‘make hear’ is used as a neologism for ‘perception’ (of whatever sense modality); ‘tactile perception’, e.g., is translated as *haarooś maccooccishshāta* (K8: 49), lit. ‘perception of touching, perception of stroking’.

- (45) namʔ-ánt-s-í besh-í=gall átt-ín  
two-PL-NOM griddle-TV=ON remain-DS  
péttán-indana mácc'-inda d'ak'-í **bekk'**-ád-e  
one-F.DEF.ACC woman-F.DEF bite-CNV1 see-F.PFV-DEC  
'Two were left on the griddle (and) the woman tasted (lit. "bite (and) see")  
one (of them).'
- (46) yíntí yiinní ízí d'ímʔ-í **bekk'**-ínt-e!  
2PL DEM2.F 3F press-CNV1 see-2PL-POLITE\_IMP-DEC  
íná áyssh-í wód'-a?  
on\_it meat-NOM be-Q  
'Please, feel (lit. "press (and) feel") it, this (tail)! Is there meat on it?'

It remains to be investigated how widespread the expression of active tasting through seeing is in the Ethiopian language area. In Sidaama (C) (47), Oromo (C) (48) and Wolaitta (O) (49), 'taste' is expressed by 'pierce', 'seize' and 'lick', respectively; the verb 'see' does not seem to be used for taste expressions in these languages. Some readings of the polysemous Amharic 'taste' verb are given in ex. (50).

- (47) arrabu k'as- 'taste' (Hudson 1989:149, 379) (lit. "pierce with tongue")  
(48) afaaniin qaba 'taste' (Gragg 1982: 311, 434) (lit. "seize with tongue")  
(49) laacc'- 'lick, taste' (Lamberti and Sottile 1997: 443)  
(50) qämmäsä 'taste; fig. experience; drink, imbibe medicine or medicinal  
potion' (Kane 1990a: 702)

#### b) 'Hear' in other Ethiopian languages

Most Ethiopian languages apply the same verb for auditory experiences and auditory activities; see, e.g., Amharic (S) *sämma* 'hear, listen to' (Kane 1990a: 462), Sidaama (C) *mačč'ĩšš'* 'hear, listen to' (Kawachi 2007a: 121, 444) and Baskeet *sisk-* 'hear, listen to' in ex. (51)-(52).

- (51) naʔáádóo kossh-ár **sisk-**ibt-e!  
children.VOC do\_well-CNV2 hear-2PL.IMP-DEC  
'(My) children, listen attentively!'
- (52) k'aar-í [...] wúmpítt-i wód'-dor gáy-i gá-áz-in  
monkey-NOM backyard.LOC-TV be-?.SS baboon-NOM say-REL-F.DEF  
**sisk-**íír  
hear-M.IPV  
'Monkey [...] was in the backyard and heard what Baboon said.'

The use of the auditory verb to express 'understand (a language)', demonstrated for Kambaata above, is also documented in Amharic (Kane 1990a: 462).

Furthermore, expressing tactile experiences by the passive form of 'hear' is a lexical "Ethiopianism" and as such included in Hayward's list of shared lexicalisation patterns of the Ethiopian sprachbund (cf. Introduction); see Oromo *d'aga'ame* 'feel' (PASS of *d'aga'e* 'hear'), Gamo *siyéttides* 'feel' (PASS of *siyides* 'hear') and Amharic *tä-sämma* 'feel' (PASS of *sämma* 'hear') (Hayward 1991: 152). Consider the Amharic ex. (53), in which the passive morpheme *tä-* is totally assimilated to the stem-initial *s* of the verbal stem.<sup>18</sup>

- (53) himäm yi-s-**sämma**-ññ-al  
pain 3M.IPV-PASS-hear-1SG.OBJ-IPV  
'I feel pain.' (Amberber 2001: 37) (lit. "Pain is heard (to) me.")

Amberber (2001: 38) states explicitly that Amharic *tä-sämma* 'feel' can not be used for tactile ACTIVITIES or tactile COPULATIVES. He shows, furthermore, that "[*tä-sämma* 'feel'] is used to express concepts which are undifferentiated between 'emotions' and 'sensations', or feelings of 'cognition' and feelings of 'the body' respectively" (Amberber 2001: 37).<sup>19</sup>

It is known from the typological literature that 'hear' verbs are used to express 'feel' in many languages (see Viberg 1984). What is remarkable in the Ethiopian sprachbund is the fact that it is the PASSIVE derivative of 'hear' that developed

<sup>18</sup> Note that Amberber (2001) uses schwa (ə) for the low central vowel here transcribed as ä. Amberber's glossing has been adapted to the conventions used in this article.

<sup>19</sup> Kawachi (2007b) claims that the 'hear' can n o t be used for physical or mental feelings in Sidaama at all.

the meaning ‘feel’. In his overview of cross-linguistic polysemy patterns in the semantic field of perception verbs, Viberg (1984) does not discuss such a formal relation between ‘hear’ and ‘feel’.<sup>20</sup> Outside the domain of hearing, the experiencer is always marked like a non-core argument and thus the grammatical encoding seems to reflect that the control of a feeling experiencer over the perceptive event is less than the control of a seeing or hearing experiencer (see also Amberber 2001).

Apart from auditory and tactile perception, the verb *tä-sämma* is used to express olfactory perception in Amharic (which is a use of the ‘hear’ verb so far not attested in Kambaata). Furthermore, expressions for gustatory perception can build on the verb ‘hear’ in Amharic (Kane 1990a: 463).

### Taste adjectives

In this section, the meaning and use of the most common Kambaata taste adjectives and verbs are discussed. It is shown that these lexemes do not match the physiologically determined basic tastes ‘sweet’, ‘salty’, ‘bitter’ and ‘sour’<sup>21</sup> but that the semantic field of taste is carved up in a very different way.

#### a) Good-tasting

The inchoative-stative verb *xe’-anó* ‘taste sweet, taste good’ is the most frequent taste verb in the corpus. Whereas almost all other inchoative-stative verbs of the language have a corresponding adjective based on the same root (Treis 2008: 268-72), this taste verb lacks a corresponding adjective. Hence, the relative verb forms given in ex. (54) are used to modify a noun.

- |      |                         |                         |
|------|-------------------------|-------------------------|
| (54) | <i>xe’-anó</i>          | <i>xe’-áa</i>           |
|      | taste_good-3M.IPV.REL   | taste_good-3F.IPV.REL   |
|      | ‘which (M) tastes good’ | ‘which (F) tastes good’ |

<sup>20</sup> Oromo is one language of Viberg’s sample but in the table with the Oromo data (p. 154) the use of ‘hear’ (or the passive of ‘hear’) is not given as an option to express perceptual experiences in non-auditory domains.

<sup>21</sup> Strictly speaking, the human taste buds can sense f i v e basic tastes: sweetness, bitterness, sourness, saltiness and the taste of monosodium glutamate. The latter taste should not concern us here. (<http://www.zas.gwz-berlin.de/pr/Indw2003/ZASGeruchswörter.pdf>; last accessed 29/09/2009).

When consultants were asked to which food product the lexeme *xe’-* was most appropriately attributed, all of them mentioned *malabú* ‘honey’ first. The next “good” candidate for a taste described with *xe’-* was *shukkaará* ‘sugar’. Furthermore, ripe fruits, e.g. bananas (*muuzá*), were said to be describable with *xe’-*. Consequently, the lexeme is most commonly associated with a sweet taste. However, apart from attributing sweetness, the lexeme *xe’-* is also associated with a pleasantly salty taste, as in ex. (55). The right amount of salt and other spices makes a dish to be described by *xe’-*.

- |      |   |               |                |                              |
|------|---|---------------|----------------|------------------------------|
| (55) | <i>antabee’-í</i>                               | <i>wóx-it</i> | <i>higis-á</i> | <i>xe’-áa-taa</i>            |
|      | chicken-M.GEN                                   | sauce-F.NOM   | much-M.ACC     | taste_good-3F.IPV.REL-F.COP2 |
|      | ‘Chicken sauce tastes very good / tastes best.’ |               |                |                              |

In the women’s avoidance vocabulary of Kambaata women (Treis 2005), *maxiníta* ‘salt’ is regularly substituted by *xe’-aanchúta* ‘(the) tasty (one)’, which is the agentive adjective form of *xe’-* ‘taste good’. Delicious salty drinks and dishes may not have too much salt while the deliciousness of sweet drinks and dishes increases with the amount of sugar that is added to them. There is no lexeme in Kambaata which corresponds to the physiological salty taste. If the salty taste is delicious, speakers use *xe’-* ‘taste good’. Dishes with too much salt are characterised as “burning” (*buss-* ‘burn’) (see section (e) below). A dish is only characterised with the derived adjective *maxin-aamú* ‘salty, salt-containing’ (< *maxiníta* ‘salt’) if a contrast has to be established to a referent not containing salt or containing, e.g., sugar; consider ex. (56).

- |      |     |   |                          |
|------|-----|---|--------------------------|
| (56) | (a) | <i>bún-u</i>                                | <i>maxin-áam-u-a</i>     |
|      |     | coffee-M.NOM                                | salt-AAM-M.PRED-M.COP2   |
|      |     | ‘The coffee contains salt / is salty.’      |                          |
|      | (b) | <i>bún-u</i>                                | <i>buur-áam-u-a</i>      |
|      |     | coffee-M.NOM                                | butter-AAM-M.PRED-M.COP2 |
|      |     | ‘The coffee contains butter / is buttered.’ |                          |

A n y pleasant taste experience can be described with the verb *xe’-*, i.e. it is a very general evaluative taste term, most appropriately translated as ‘taste good’. Ex. (57) shows that it may also describe a pleasantly sour taste experience.

- (57) **xe'**-áa-taa                      lóomm  
 taste\_good-3F.IPV.REL-F.COP2    lemon.F.PRED  
 'It is a tasteful lemon (i.e. it is not too sour).'

In order to characterise a dish or a drink as having an unpleasant taste, a negative verb form of *xe'*- has to be used. Interestingly, there is no general verb 'taste bad' in Kambaata, instead the palatability must be negated or the unpleasantness of a taste must be further specified.<sup>22</sup>

In metaphors, the verb *xe'*- can be applied to non-food referents; see the characterisation of talk as "good-tasting" in ex. (58). A person's voice (*laagáta*) and appearance (*haatá*) can be described as "good-tasting", too.

- (58) xáh-u                      **xe'**-isiis-án                      ag-áno  
 word-M.NOM    taste\_good-CAUS2-3M.ICO    drink-3M.IPV  
 'Talk is pleasant (at first), (but then) it drinks (i.e. fools) (you).' (Proverb)

The imperative form of *xe'*- 'taste good' is used in blessings for girls, which express the wish that the addressee may be liked and considered good-mannered by others; consider ex. (59).

- (59) maxín-é=g-a                      /    malaab-í=g-a                      **xé'**!  
 salt-F.GEN=GA-M.OBL    honey-M.GEN=GA-M.OBL    taste\_good.2SG.IMP  
 'Be pleasant like salt / honey!'

The noun *xee'nná* 'taste; good taste', which is based on the same stem as the verb *xe'*- 'taste good', can be used neutrally to refer to the sensation perceived in one's mouth or evaluatively to describe a positive sensation. Furthermore, the noun has the meaning 'value'; see ex. (60).

<sup>22</sup> Viberg (1984: 153) mentions that Oromo has two evaluative taste verbs: *mi'aa'u* 'taste good' and *hadaau* 'taste bad'. Gragg (1982), however, translates *had'd'aa'a* (in his transcription) as 'be bitter' [sic!].

Note that Kambaata has two anonymous evaluative verbs in the olfactory domain (see § V).

- (60) zhaantil-í                      **xee'nn-á**                      kabár    dagg-óomm  
 umbrella-M.GEN    taste-M.ACC    today    find-1SG.PVO  
 'I realised the value of an umbrella today.'

### b) Bitter and sour

The inchoative-stative verb *qaraar-* 'be(come)/taste bitter' and the derived adjective *qaraar-aashsh-á(-ta)* 'bitter' are prototypically used to describe the taste of the leaves of the *heebá*-tree (possibly *Vernonia amygdalina*) and the taste of *xeemú*, a thick tapeworm medicine with a strong laxative effect, which is extracted from the blossoms of the *xeemú*-tree (*Hagenia abyssinica*). In addition to these, other types of medicine and spices (e.g. *gamballáta xagúta* 'black cumin'), bile (*dambichchú*), the growth centre of the enset plant (*mulu'llá*),<sup>23</sup> and tobacco (*tumbe'ú*) were given as examples for products with a taste most appropriately described with *qaraar-* 'be(come)/taste bitter'.

The tastes described by the lexeme *qaraar-* 'be(come)/taste bitter' are not necessarily negative and *qaraar-* cannot simply be considered the antonym of *xe'*- 'taste good'. Self-made beer (*seelú*) and bean ("eye") coffee (*illichchí buná*) is appreciated when characterised as strong and *qaraaraashshá(-ta)* 'bitter'. In the case of leaf ("ear") coffee (*maccá buná*), however, a bitter taste must be avoided. If the leaves of the coffee tree are not pounded and then steamed or dried in the sun in order to reduce the bitter principles, the resulting drink (leaf coffee) is described with the inchoative-stative verb *qamaraar-* 'be(come)/taste bitter', a hyponym of *qaraar-* 'be(come)/taste bitter' and a taste verb which specifically describes the (unpleasant) bitterness of leaf coffee.

Apart from bitter tastes, the lexeme *qaraar-* 'be(come)/taste bitter' also seems to be applicable to food with a sour taste; one consultant used it to describe the taste of unripe fruits, e.g. oranges.

### c) Fermented sour

Whereas the German lexeme *sauer* 'sour, acidic', for instance, covers naturally sour tastes (e.g. of oranges, apples) as well as sour tastes resulting from fermentation, these two types of sour tastes are clearly kept apart in Kambaata. The inchoative-stative verb *shiish-* 'be(come)/taste sour, acidic' and the corresponding adjective *shiish-á(-ta)* 'sour' are only applied to sour tastes resulting from fermentation, irrespective of whether the sour taste is considered positive or negative. The lexeme is thus applied to fermented milk (*azúta* 'milk', *gimmáta*

<sup>23</sup> If it is fermented together with the pulp from the enset leaf sheaths it makes the enset food taste bitter.

*azúta* ‘churned milk’, *zomború* ‘first milk’) and milk products (e.g. *ge’inú* ‘yogurt’, *buurú* ‘butter’), dough of bread (*bukúta*), different bread types (*daabbúta* ‘(wheat) bread’, *injeerá* ‘injera, tef-pancake’), various fermented enset products (e.g. *bu’llá* ‘fermented enset flour’) and beer (*seelú*).

In the traditional avoidance register of Kambaata women (Treis 2005), the word for milk, *azúta*, is replaced by *shiihú* ‘(the) sour, acid, fermented (one)’. In Kambaata (and elsewhere in Ethiopia) butter has to be fermented before it is consumed.

#### d) Tasteless

The inchoative-stative verb *balj-* ‘be(come) tasteless, bland, insipid’ and the corresponding adjective *baljá(-ta)* usually carry a negative connotation. The lack of salt, spices or red chilli pepper makes food *baljá(-ta)*; consider ex. (61). Alternatively, insipid food can be characterised as ‘water’ or as ‘saying water-water’; see ex. (62).

- (61) ti wóx-it bálj-a-ta [= wó'-a-a]  
 DDEM1.F.NOM sauce-F.NOM tasteless-F.PRED-F.COP2 water-M.PRED-M.COP2  
 ‘This sauce is tasteless (= water).’

- (62) fárr-at denékk-at af-ée aaz-éen  
 bad-F.NOM potatoes-F.NOM mouth-M.GEN inside-M.LOC  
 wó'-a wó'-a y-itáni-yan it-éenno  
 water-M.OBL water-M.OBL say-3F.ICO-DS eat-3HON.IPV  
 ‘Bad potatoes taste watery (lit. “say water-water”) when one eats them.’

The lexemes *balj-* and *baljá(-ta)* are commonly used to characterise the taste of chilli pepper pods, which are, contrary to one’s expectation, not hot enough (63).

- (63) kú babbár-ch-u bálj-a-a  
 DDEM1.M.NOM chilli\_pepper-SG-M.NOM tasteless-M.PRED-M.COP2  
 ‘This chilli pepper pod is bland.’

The adjective *jallá(-ta)* ‘tasteless, insipid, bland’ seems to be synonymous to *baljá(-ta)*. Both lexemes can be applied metaphorically to characterise very stupid people.<sup>24</sup>

#### e) Hot

Hotness is not considered a taste sensation in the technical sense, because, strictly speaking, this sensation is not perceived by the human taste buds but by thermoreceptors. Nevertheless, expressions for the hotness of food and drinks are discussed in this section because of a certain degree of terminological overlap. The verb *buss-* ‘burn (vt)’ (the causative form of *bub-* ‘burn (vi)’) is first of all used to express that something is on fire (e.g. a house) or extremely hot with respect to its temperature (64), but, as in many languages of the world, the verb can also be used to describe the sensory experience caused by red or green chilli pepper. Hence, the utterance in ex. (65) has two possible interpretations.

- (64) ku bún-u buss-áno-a  
 DDEM1.M.NOM coffee-M.NOM burn-3M.IPV.REL-M.COP2  
 ‘This coffee is burning (i.e. very hot).’

- (65) ti wóx-it buss-itáyoo'u  
 DDEM1.F.NOM sauce-F.NOM burn-3F.PROG  
 ‘This sauce is (i) hot (due to chilli pepper) / (ii) hot (high temperature).’

In the semantic field of taste, the verb is furthermore used to characterise a pleasantly sour taste of lemons (*loommíta*) and passion fruits (*hoo'mmíta*); it describes the sensation during the consumption of local brandy (*haraqíta*) and the unpleasant taste of food containing too much salt; see ex. (66).

- (66) kán qeess-á maxín-it batá' buss-itáyoo'u  
 DDEM1.M.OBL cheese-M.ACC salt-F.NOM be\_too\_much.3F.PCO burn-3F.PROG  
 ‘There is too much salt in this cheese, it is burning.’

<sup>24</sup> Note that in the Cushitic language Dhaasanac the taste adjective *mennep* ‘tasteless; ill-mannered’ is also used to describe human behaviour (Tosco 2001: 565).

Metaphorically extended, *buss-* can characterise painful, offensive words (*bussitáa laagáta* ‘words which burn’) and certain types of pain (see ex. (19) above). While intense heat can only be “burning”, intense cold can be described as “burning” or “cutting”; see ex. (67).

- (67) inq-úta            mur-áno-a            wó'-a  
tooth-F.ACC      cut-3M.IPV.REL-M.COP2      water-M.PRED  
‘It is very cold (lit. “teeth-cutting”) water.’

Depending on the intensity and the area where hotness is perceived, semantically more specific ‘burn’ verbs can be used to describe the sensation during the consumption of different types of chilli pepper. The following verbs are hyponyms of the semantically general *buss-* ‘burn’: The ideophonic compound verb *hamúss a'* ‘burn slightly’ describes the weak burning sensation during the consumption of mild pepper. The verb *laade'* ‘burn extremely’ characterises the extreme sensation during the consumption of unbearably hot pepper. The verb *good-* ‘burn enormously’ seems to describe a slightly less extreme sensation than *laade'* ‘burn extremely’; apart from using it in the context of pepper, it is also attested to describe unpleasant burning sensations in the mouth resulting from the consumption of spoiled, pungent-tasting tubers (e.g. *gabizá* ‘taro’). The verb *lodd-* ‘burn enormously’ was favoured when the burning sensation caused by pepper was not restricted to the interior of the mouth but also felt around the lips. Note that these specific ‘burn’ verbs all originate from the semantic field of combustion; only *hamúss a'* ‘burn slightly’ is (so far) restricted to the context of sensations caused by chilli pepper.

### Taste expressions in other Ethiopian languages

The Kambaata basic taste terms are not congruent with the physiological basic tastes ‘sweet’, ‘bitter’, ‘salty’ and ‘sour’. Kambaata has a general evaluative lexeme *xe'* ‘taste good’, which can describe pleasant taste experiences irrespective of whether they are perceived as sweet, salty, bitter, or sour. But whereas the language has a general positive taste verb it lacks a corresponding negative taste verb. A salty dish is described with the verb *xe'* ‘taste good’ if it is palatable or with the verb *buss-* ‘burn’ if it is inedible because of too much salt. The domain of sour taste is covered by the lexemes *qaraar-* ‘taste bitter’ and *shiish-* ‘taste sour’, the former being used for natural sour tastes, the latter for sour tastes resulting from fermentation. The absence of taste is expressed by *baljá(ita)* ‘tasteless, insipid, bland’. The hotness of a dish is described by choosing from an array of verbs from the lexical field of combustion.

So far, little can be said about whether the lexicalisation patterns attested in the semantic field of taste in Kambaata are shared by the related Cushitic languages and by geographically adjacent Ethio-Semitic and Omotic languages. Lexical data on taste expressions are scarce in the literature on Ethiopian languages. However, there is reason to hypothesise that the other languages of the area share (at least some of) the taste concepts reflected in the Kambaata data.

In all Highland East Cushitic languages documented in Hudson (1989), a lexeme is attested that has ‘be sweet’ as its central meaning but which is also generally used to express ‘taste good’; see Burji *d'ed'e* ‘taste good, be sweet’ (p. 188), Gedeo *t'e'm-* ‘taste good, be sweet’ (p. 263), Hadiyya *t'ee'* ‘taste good, be sweet’ (p. 300), Sidaama *c'oomm-* “(esp. of meat [sic!])” (p. 357) ‘taste good, be sweet’. A general ‘taste good’ verb, *ma'l-*, is furthermore attested in Wolaitta (Omotic); Lamberti and Sottile (1997: 450f) trace its cognates in various Omotic and Cushitic languages. The Amharic verb *t'affät'ä* is translated as ‘be sweet, taste sweet, be tasty, taste good, be delicious, be savoury’ (Kane 1990b: 2196).<sup>25</sup>

Furthermore, Kambaata does not seem to be the only language which expresses bitter taste and (at least one type of) sour taste by one and the same lexeme; see, for instance, Oromo *had'd'aa* ‘sour, bitter’ (Gragg 1982: 434) and Alaaba *k'araarú* ‘be bitter, be sour’ (Schneider-Blum 2007: 442). Furthermore, both languages have lexemes translated as only ‘sour’ / ‘become sour’, namely Oromo *d'angaggoo* (Gragg 1982: 434) and Alaaba *hollat'u* (Schneider-Blum 2007: 439) and it would be worth investigating whether these lexemes are by and large restricted to ‘sour due to fermentation’ like in Kambaata. The Amharic verb *märrärä* is translated as ‘taste bitter, be sour or acid (green fruit)’ (Kane 1990a: 177),<sup>26</sup> while for the verb *k'ämät't'ät'ä* the translations ‘be acid, be sour, turn sour (milk), to ferment (batter)’ are given.

### Outlook

Apart from Hayward’s work (1991, 2000), research on the features of the Ethiopian sprachbund has up until today exclusively concentrated on grammatical aspects but disregarded shared lexicalisation patterns. This lack of interest can predominately be explained by the unavailability of dictionaries and searchable text or lexical databases, which is most marked in Omotic languages. The dictionaries that are available usually contain only information on the canonical uses of a lexeme; little information can be gathered on the polysemy or semantic associations of a lexeme. The present paper should be considered as a very preliminary study of shared

<sup>25</sup> Other translations are ‘smell good, have a nice smell; be pleasant, pleasing, e.g. speech’ (Kane 1990b: 2196).

<sup>26</sup> Other translations are ‘be distasteful, unpleasant; be angry, vexed, upset’ (Kane 1990a: 177).



lexicalisation patterns. It is intended to formulate the very first hypotheses about how the semantic field of physical perception and the semantic field of taste are carved up in the Highland East Cushitic language Kambaata and in genetically related and/or geographically adjacent languages. Admittedly, the comparison of Kambaata with other Ethiopian languages had to remain cursory but hopefully this study will stimulate more research on the lexical characteristics of Ethiopian languages (and beyond) in general, and on the lexical domains of perception verbs and taste expressions in particular. In this final section, I would like to propose the following package of lexicalisation patterns which could be used in combination to define lexical features of the Ethiopian sprachbund.

(68) In languages of the Ethiopian sprachbund ...

- the same verbal lexeme is used for vision experiences and activities;
- the same verbal lexeme is used for auditory experiences and activities;
- there is no separate verbal lexeme 'taste' (apart from a recent Amharic loan);
- there is no separate verbal lexeme 'feel';
- the passive form of the verb 'hear' is used (at least) for tactile and gustatory (possibly also olfactory) experiences; it is not used for tactile, gustatory or olfactory activities;
- the verb 'see' can be used for perceptive activities in non-visual sense modalities;
- the verb 'hear' has the meaning 'understand (a language)', apart from this 'understand' is expressed in a construction with the verb 'enter';
- there is a general evaluative verb-pair 'smell good' and 'smell bad';
- there is a general evaluative verb 'taste good' but no equally general verb 'taste bad'
- the lexeme '(become) bitter' is also used to describe certain instances of '(become) sour';
- there is a lexeme with the prototypical meaning '(become) sour (by fermentation)';
- hotness (caused by chilli) is expressed in constructions with combustion verbs.

I do not want to claim that the individual polysemies or semantic associations presented here are cross-linguistically unique; there are, e.g., many languages in world that use 'hear' for other sense modalities. Instead, I propose the whole package of lexicalisation patterns as a feature of the Ethiopian sprachbund.

Further research will have to examine, in particular, to what extent the lexicalisation patterns found in the semantic fields of perception verbs and taste

expressions in Kambaata are shared by other languages in Ethiopia, or whether the patterns are rather language-specific, contrary to my assumption. A comparison with related languages outside the Ethiopian language area will then have to be carried out in order to determine whether certain lexicalisation patterns can indeed be considered features of the Ethiopian sprachbund, whether they are inherited features, or whether they are even more widely attested on the African continent.

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