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South Cushitic classification in lexicostatistic perspective

Abstract

A purpose of the present study is an evaluation of various models of classification of the South branch of the Cushitic languages. The South Cushitic languages are studied in their narrow sense here, i.e. without Dahalo and Ma'a, although their probable cognates are registered.

Keywords

South Cushitic, lexicostatistics, glottochronology, internal classification.

First of all, let us summarize the geographic & demographic circumstances and history of the research in this field. In terms of numbers of speakers, the biggest language, Iraqw, is spoken in Northern Tanzania between the Lakes Eyasi and Manyara. In 1992 Maarten Mous estimated the number of the Iraqw people at 517,000. *Ethnologue*$_{21}$ (2018) proposes 603,000 (2009). The first records of Iraqw and its closest relatives, Gorowa (113,000 – 2009), Alagwa (53,000 – 2009) and Burunge (28,000 – 2009), were published in the last decade of the 19th century (Baumann 1894). Meinhof (1906) recognized serious cognates between Burunge and Ma'a on the one hand and Somali on the other hand; most of them are still acceptable at the present time. In the appendix to Claus' brief description of Qwadza (Claus 1910: 'Wangomwia') Meinhof convincingly demonstrated a relationship between Qwadza and Burunge. Greenberg's (1963, 49) 'South Cushitic' consists of Iraqw & Gorowa, Burunge, Alagwa, plus Ma'a ('Mbugu') and Dahalo ('Sanye') from Kenya. The ethnic population of Dahalo was estimated at c. 2,400 in 2009, but already in 1992 the number of speakers was c. 400 and now may be totally extinct. In 1960's Fleming and Ehret added another language from Tanzania, Asa (first described by Merker 1904) to South Cushitic.

Its population was around 350 in 1999, the number of at least partial speakers was c. 100 already before 1992 (*Ethnologue*$_{21}$ 2018).

Fleming and Ehret (Fleming 1969, 17; the figures after Ehret 1980, 15) expressed the genetic relations within South Cushitic as follows in Tree diagram 1:
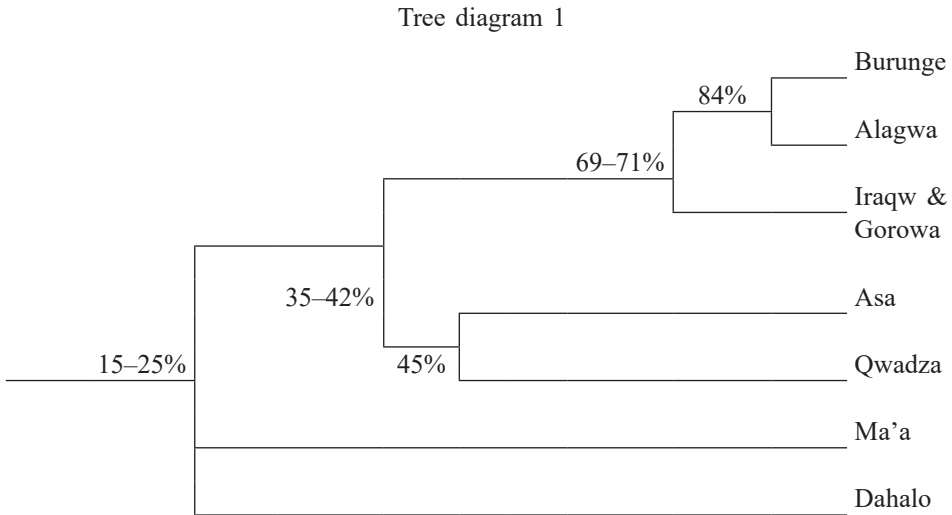
Tree diagram 1

In the later models of the South Cushitic classification projected in Tree diagram 2 Dahalo is excluded (Tosco 1989; Blažek & Tosco 1994; Blažek 1997, 173–174). The special status of Ma'a as a hybrid language with both Bantu and Cushitic features has acquired a new dimension thanks to M. Mous (1995, 2003) who recognized two strata in the Cushitic-like lexicon of Ma'a, namely (i) Iraqwoid; (ii) Oromoid. Consequently Mous rejects the role of Ma'a as an independent South Cushitic branch.
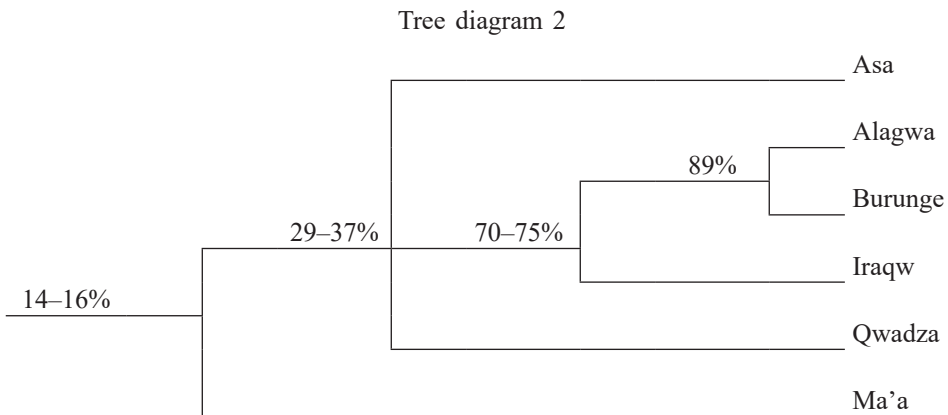
Tree diagram 2

Kieβling and Mous offer their alternative classification, based especially on the phonologic and morphologic criteria (Kieβling 2002, 19; Kieβling & Mous 2003, 1–2), which is depicted in Tree diagram 3:

Tree diagram 3
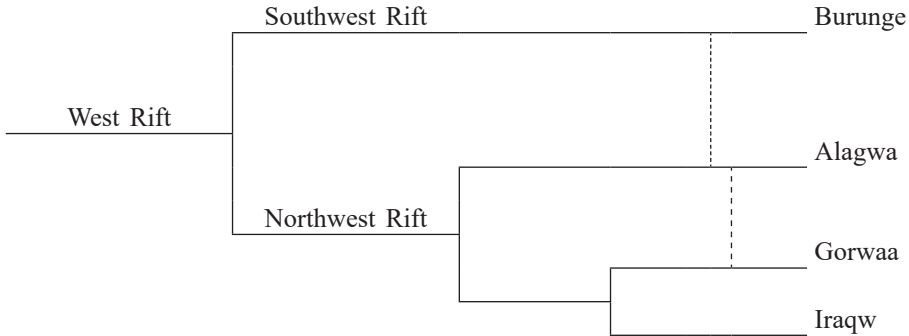
The present study operates exclusively with the lexicostatistical approach. Two 100-word lists were compiled, I & II. They consist of semantic units, chosen according to Swadesh and Bender. Wordlist I summarizes the core lexicon of Iraqw collected by the following authors (with total numbers of lexical units in brackets): Dempwolff 1916–17 (279), Whiteley 1958 (134), Fleming 1965 (105), plus some additions from 1969, Ehret 1980 (100-words-list, plus numerous examples in the text), Maghway 1995 (1,500), Mous, Qorro & Kiessling [MQK] 2002 (3,850). Wordlist II contains the core lexicons of Gorowa, Alagwa, Burunge, Asa, Qwadza. In both wordlists the column 'etymology' offers the etymological explanations either from Iraqw proper or on the basis of parallels from other South, East, Central and North (Beja) Cuhitic, occasionally also Omotic, Nilo-Saharan or Khoisan (Sandawe) languages are cited.

The present results may be summarized in Table 1:

Table 1

	Gorowa	Alagwa	Burunge	Asa	Qwadza
Iraqw	87/88 = 0.9886	81/97 = 0.8350	75.5/95 = 0.7947	37/80.5 = 0.4596	32.5/79.5 = 0.4088
Gorowa		77/89 = 0.8652	70/88 = 0.7954	34/81.5 = 0.4172	30/77.5 = 0.3871
Alagwa			85.5/96 = 0.8906	34.5/81.5 = 0.4233	30/79.5 = 0.3774
Burunge				35.5/81.5 = 0.4356	28/78.5 = 0.3569
Asa					30/74 = 0.4054

Applying the standard cladistic procedure and chronological calibration developed by Sergei Starostin in his 'recalibrated' modification of glottochronology, it is possible to construct Tree diagram 4:

Tree diagram 4
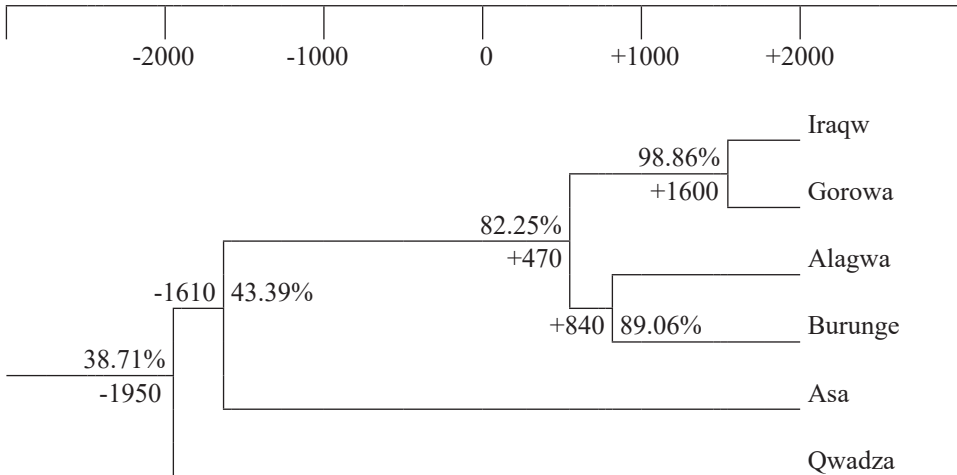
The figures are more or less coherent, with a single exception – the position of Burunge versus Iraqw & Gorowa, expressed by the percentage 79–80%, in comparison with the relation of Alagwa, the closest relative of Burunge according to present results, to the same Iraqw & Gorowa, expressed by the pecentage 83–87%. Applying the dialectometric method, combining the lexicostatistic, phonologic and morphologic approaches, Kießling (2002, 431) has obtained figures, characterized by the same feature, i.e. a significantly lower score of Burunge vs. Iraqw & Gorowa in comparison with the score of Alagwa vs. Iraqw & Gorowa:

Table 2

	Gorowa	Alagwa	Burunge
Iraqw	93.2%	66.6%	57.2%
Gorowa		68.0%	58.0%
Alagwa			77.2%

One possible explanation is the influence of Burunge on Alagwa, called *Burungisierung* by Kießling (2002, 480–82). It is a quite legitimate solution, which should be supported by Burunge borrowings in the Alagwa core lexicon.

Wordlist I: Iraqw

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
1. *all₁*					adawa	?ECu: Som aad *very, much* (EC$_{HL}$ 62)
all₂	hlemɛro (F)		hlemero		sleémeeroo	KM 261: *sliima cf. Ir sleemee *also*
2. *ashes₁*	da'ara (F)		daʕara	daʕraa, pl. daʕradu'	daʕara	KM 78: *daʕaraa; cf. ECu *darʕ- id. (EC 16; SC$_F$ 21)
ashes₂				tumúq *hot ash*		
3. *bark*	qafi (F)		qafi	qafi, pl. qafoo *peel, membrane, outer skin*	qafi, pl. qafoo	KM 228: *qafiya, pl. *qafoo; SC 368; SC$_F$ 21: CCu *qaf- id.
4. *belly*	guraʕa (D) gura' (F)	gûra, pl. gûr'e *stomach*	gura	gura', pl. gur'ee	gura', pl. gur'ee	KM 122: *gura'a; SC 239; ECu *gur'- *udder* (EC$_B$ 86); CCu: Awngi guriaŋχɛ *navel* (Wedekind)
5. *big₁*	ur (D) ur (F)	ur, pl. uren	ur		ur, pl. uren *big, old, many*	KM 309-10: *'ur, cf. *'uraw *grow up, become adult*; SC 295: Ma'a uda *far*; ?ECu: Bj wod- *grow* (EC$_{HL}$ 62)
big₂					pl. dirén *big, wide*	KM 96: *dir; SC 188: Da ɗar- *increase*
6. *bird*	ṣir'o (F)	tsîrʕi, pl. tsîrʕo	tsirʕi		tsirʕi, pl. tsirʕoo	KM 299: *tsiraʕa SC 226; ECu: Or çirrii, HEC 27: *çiiɗa- id.
7. *bite*	kyɛ (D) kiḥ- (F)		kiḥ-	kiiḥ	kiiḥ	KM 175: *kiḥ; SC 252: Da k'aḥ-
8. *black*	buγ, buʕ (D) bŏʕə, bor' (F)	boäʕ, pl. bäʕ	boʕa	booʕ	booʕ, pl. boʕ(ayen)	KM 74: *booʕ, pl. *boʕ; SC 388

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English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
9. *blood₁*	ts'ẹri (D) ṣɛre (F)	tséere, pl. tséer'du	tsere	tseeree, pl. tseer(e)du'	tseeree, pl. tseerdu	KM 295: *tseedee; SC 199: Da ts'íraara'e *red*
blood₂					fooya	
10. *bone*	fãra (D) fara (F)	fẫra, pl. fâdu	fara	fara, pl. fadu'	fara, pl. fadu⁽'⁾	KM 104-05: *fara, pl. *fararu; SC 150: Ma'a ifwára id.; cf. ECu: Som feeḍ, Jiddu feer, Boni fée(r)ḍ *rib* (Sm 81)
11. *breast₁*	isam (F)		isaŋ id. isama *udder*		isaangw, sg. iseemi	KM 166: *'isangw, pl. *'iseemi vs. *'isa'amu *nipples*; cf. pKhoe *sam *female breast* SC 283: Ma'a i'asemu; ?CCu: Aw əšew *heart*; ?Beja ésse *belly* (Re)
breast₂	dãʕeo *Brust* (D)	dá'ʕêwa *chest*			daʕawa, pl. daʕeewee *chest*	KM 78: *daʕaba; ECu: ?Som ḍab *lap*, Af ḍabʕe *armpit*; Beja daba *chest*, *breast*
12. *burn₁*			daʕ-		daaʕ	KM 77-78: *daʕ; SC 345; ECu: Afar diyyi *carbon*, Ya daai *fire-stick*; Beja di'έ *brand*
burn₂	a'o- (F)		oh-	'oh *catch fire*	oh	KM 221 *'ooh; SC 294; ECu: OrW adj. o''aa-, Macha hoaa, Bor owwaa *warm, hot*
burn₃				hamiis	haamiis *burn for fuel*	from Ir v. haam *be hot, warm* (KM 130)

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
13. *claw*	fuʕgono (D) foqeni (F)	fúqûno, pl. fúqéeni *fingernail*	fuqno	fuqnoo, pl. fuqeeni'	fuq(u)noo, pl. fuqeeni	KM 110: *fuqunoo; cf. *faanqu *hoof* & *fuunqaaru *pair of hooves* (KM 104, 110; SC 152); maybe also ECu: Rd góffan, Arb kunúf, El kúnuf *claw*, Ds kònòf *hoof*
14. *cloud₁*		hûnki, pl. hûnkay	hunki	huu(n)ki, pl. huu(n)káy	huunki, pl. huunkáy	cf. Da winku < Sw wingu id.
cloud₂			(tlafi *rain cloud*)			KM 274: *tlafiya, pl. *tlafoo; SC 214
cloud₃	tlaŋgu (F)		tlangi *fog*	tlaangí, pl. tlaangú *fog, mist*		KM 278: *tlaangwiya, col. *tlaangwa; SC 217: Qw tlungato *sky*; cf. Sand tl'ung'gu *cloud*, tl'wang' *rain*
15. *cold₁*			tsaʔ	v. tsa'	tsa'	KM 286: *tsa' adj. *cool*, *tsa'aw v. *become cool*; SC 176: Qw tsa'u- id.; Ma'a sa'a *cold, wind*
cold₂	ṣaqwa (F)			adj. tsaaqwa	v. tsaqut	KM 292: *tsaaqwa; SC 173; cf. also Bu caqomo; Da t'ókkoome id. (SC 176)
cold₃					n. xuumpaa	
16. *come₁*	daqaw *go* (F)				daqaw	KM 88: *daqaw *go*; SC 189: Da dàkw- be *going*; ECu *daḳ- *go* (EC_B 51)
come₂	χawe! (D)		xaw	xaw	xaw	KM 320: *xaw; SC 256: ?Ma'a -hwá'a *return*

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
come₃					qwaláng!	Bu kwalẽ'! id. (D) ?ECu: Sam *káálèì! id. (Sm 87)
come₄	hard- (F)				hardah- *arrive*	KM 82: *dah SC 164; Beja da *enter*
17. *die₁*	gwa (D) agwa' (F)		gwa	gwaa	gwaa'	KM 123: *gwaa'; SC 263: cf. Asa gawa *death*; Ma'a -ga *die* ECu: Som go', Ba gue
die₂				qaatl	qaatl (*of many*)	KM 232: *qatl ?ECu: Som qaḍid *die out* or EC 49: *qal- v. *slaughter*
18. *dog₁*	se'áí (D) se'ai (F)		seʔay	see'aay	seeaay, pl. seeaawee	KM 251: *soo'ay; SC 350
19. *drink₁*	wʌha- (F)		wah-		wah	KM 313: *wah, dur. *waham SC 313: Ma'a -waha; SC_F 24: HECu *wa'- *water* (HECu 164) < ECu *waʕ- (EC_B 186)
drink₂	gawa (F)					SC_F 23: Ma'a go- *suck*
20. *dry₁*	akat, kah- (F)		kat	adj. kaahaar	adj. kaahaar	KM 169: adj. *kahar, from v. *kah; SC 242: Ma'a v. -kahí *dry* ECu: Du *kaḥ- *be dry* (Eh 128)
dry₂					agee(ngw) dry season	KM 51: *'ageengw ECu: Som engeg-, Bo aneg-, Rd angag- v. *dry* (EC_B 169)
dry₃					v. qoro'oot	SC 366, 388 KM 172: *karaḥ cf. ECu: Som qaraḥ *dry* (DSI)

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
21. *ear*	i'a (D) e'a (F)	î'a, pl. î'a'	eʔi	'ii'a, pl. 'i'a	iia, pl. ia'	KM 156: *'ii'a; SC 289: ?Asa yot-*hear*; Da 'eeṭiṭ- id.; ECu: SaAf *'ayti *ear*
22. *earth₁*	ḥape (F)	ḥâpe, pl. ḥâpu	ḥape		ḥapee, pl. ḥapu	KM 149: *ḥapee
earth₂		Go yáamu *country*	yamu *under*, *below*, *floor*	yaamu *land*, *ground*, *country*	yaamu, pl. yaamee	KM 329: *yaamu; SC 315: Qw hamuko *under*; Da jem- *stay in a place*
23. *eat*	aiim (D) ʕa-im-/a'ai- (F)		ʕayim	ʕaay, dur. ʕayiim	ʕaay, dur. ʕaayiim	KM 50: *ʕag, dur. *ʕagim; SC 275: Da ʕag- id.; cf. Qw agoto; Ma'a ki'agú; Da ʕàga *food*; EC 17: *ʕa/i/ug- *drink*
24. *egg*	qʌnḥi (F)	qânḥi, pl. qânḥa	qanḥi	qanḥi, pl. qanḥaa	qanḥi, pl. qanḥaa	SC 253, KM 229-30: *qanaḥaa/*qana'iya; Ma'a ikokóha; Da ʕógohi; ECu *'ukaaḥ-; Beja kuhii
25. *eye*	ila (D) ila (F)	îla, pl. îla'	ila	'ila, pl. 'ila'	ila	KM 158: *'ila, pl. 'ilaa; SC 293: Ma'a i'ilá; Da 'ila; ECu *'il- (EC_B 104); CCu *'əl-; Beja liilii
26. *fat₁*		n. dî'ʕi, pl. dî'ʕay	n. diʕi	n. diʕi, pl. diʕaay	n. diʕi, pl. diʕaay	KM 99: *duʕiya; SC 165: Asa da'ara *heavy*; Da ḏeʕʕem- *be fat*; ECu: Ya -dee'ɛu' *fat*
fat₂		adj. ʕatlar			adj. ʕatlaar	KM 62: adj. *ʕatlar, from *ʕatl *be mature, fully grown*; SC 275
fat₃	n. waḥna (F)			v. waḥaar n. waḥni *fat flesh*	adj. waḥaar	Al v. waḥar (M), n. waḥani, Bu waḥana *animal fat* (KM 314)

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English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
27. *feather*	hai (F)		hayi	hayi, pl. hayoo	hayi, pl. hayoo	SC 381: Al hayi, Bu haaya id.; Asa haya *feathering of arrow*
28. *fire*	a̱sa, ĕ̱se (D) ahla (F)		ahla	’asla, pl. ’asloo	asla, pl. asloo	KM 61: *’asla; SC 297: Ma’a mwáhla; ?ECu: Ba elen id., HECu *eeliin- *sun*; CCu *aläl- *burn* (Eh 81)
29. *fish*	siyyo (F)		simo	siimoo, pl. siyó	siiy-ó, pl. -odu, sgt. -omoo	< Mbugwe siyé < Bantu *túí (KM 251)
30a. *fly₁* n.	ba’armo (D)			pl. ba’ár, sg. baar(a)moo	ba’ár *flies*, *bees*	KM 67: pl. *ba’ara, sgt. *ba’ariya; SC 147: Qw pa’aliko *flying termite*; Da pl. p’aara *termite*
fly₂ n.					mitsáy *fire flies*	KM *masaasakwamo *small black ant* cf. Bu ma̱sasók (D)
fly₃ n.					sluwáx *horsefly*	
30b. *fly₁* v.			ʕaqmit-	ʕakuut *jump*	ʕakuut, dur. ʕakwmiit	KM 52: *ʕakuut
fly₂ v.	tlemu- (F)				tlaw	KM 280: *tlaw; cf. ECu: Or ḍaab- *erect*; SC 216
31. *foot / leg*	(h)iya’e (D) ya’a (F)	yâ’e, pl. yâ’a *leg*	ya ʔe	yaa’ee, pl. ya’a’ *foot*, *leg*	yaaee, pl. ya’a’ *foot*, *leg*	KM 328: *yaa’ee; SC 384
32. (*be*) *full₁*					v. ʕif	
(*be*) *full₂*	ha̱s-mu (F)		adj. hats	adj. haats	v. haats	KM 134: v. *hats SC 381: Qw hatsumo *much*; ECu: Du *h/xuç- *full*

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
33. *give₁*	hanisa (F)		hanis-, Go haris-	haniis	hariis (arch.) & haniis	KM 129-30: *hadis; SC 305
give₂					qaw	KM 232: *qaw
34. *go / walk₁*					aw	KM 63: *'aw *go to fetch*
go / walk₂			kaw- *go to*		kaw *go to*	KM 174: kaw *go to*; ECu: Som kooy-, Ba ko(i), Or kooti, Ko xoyi *come* (EC_HL 110)
go / walk₃	tlau (F)		tlaw-		tlaw- *wake up, go*	KM 280: *tlaw SC 359; see *fly*
go / walk₅				hi'iit	hi'iit *take a step, walk*	KM 136: *hi'it
35. *good₁*	ho̞ (D) ho̞e-ma (F)	ḥooḥoo	ḥoho		ḥoo', pl. ḥo'	KM 154: *ḥoo'; SC 302: Ma'a -ha *good*
good₂				(i)qon	qoón	cf. Ir v. qoom *fit, be alike, equal* Al qoma'itis- *match* (SC 292-93; KM 234)
good₃	ṣu (F)					
36. *green*	qansar (F)	qantsar	qantsar		qantsar	KM *qaantsar vs. *qaantsa *something wet or moist*; SC 250; ECu: Som qanjiḍ *halbreifer Zustand* (Re; Me 262)
37. *hair₁*	sẹ'ẹa (D) *Haupthaar* se'eum (F)		se'emi	se'eemi, pl. se'eengw	se'eengw, sgt. se'eemi	SC 350; KM 247: sgt. *se'eemi, col. *se'eengw
hair₂			bori *body hair*		boori *beard on the chin*	KM 75: *boora ECu: Som baar *hairs of the camel's hump*; Beja băr *camel-hair*

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English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
38. *hand₁*	daua (D) dawa (F)	dâwa, pl. dâba *arm*	dawa	dawa, pl. daba'	dawa, pl. dabee	KM 79: *daba; SC 162: Da d̠aβa id.; ECu *zaab- *handle* (EC_Z 139); Beja dábi *handle* (Re)
hand₂	ṣaai (F)		tsaʕay *palm of hand*		tsaʕay, pl. tsaʕi'i *palm of hand, sole of foot*	KM 287: *tsaʕay SC 173; Qw tse'uko *fingernail* cf. Sand ts'waʔa *claw, nail* (Kagaya)
39. *head*	săgă (D) sɛgɛ (F)	sâga, pl. sâge	saga	saga, pl. sagee	saga, pl. sagee	KM 243: *saga; SC 350; ECu: Or sagoo *back of head*; CCu: Awngi seg *higher part* (Eh 141)
40. *hear*	χmis (D) axas- (F)		axas	'axaas	axaas, dur. axmiis	KM 64: caus. *'axas- SC 288
41. *heart*	mona (F)		muna	muuná, pl. mun(aaw)ee	muuná, pl. muunaawee	KM 210: *muuná; SC 159: Da mùna id.; ECu: Sam *minḍiqar *intestines* (Sm 91); Beja mána *bowels, intestine, viscera* (Rp)
42. *horn*	χărmo (D) xarmo (F)		xaraŋ	xarmo, pl. xareemi'	xaarmoo, pl. xaareemi	KM 318: *xadamu / *xadaangw; SC 256: Ma'a lu-haremú / -xaremú id.
43. *I*	aní (D) ani (F)		an		aníng	KM 56: *'ana; SC 283: Ma'a ání; Da 'ányi; ECu *'an-i/-u; CCu *'an-; Beja ane id.
44. *kill₁*	ugas (D) qasa (F)		gas-	gaas	gaas	KM 114: *gaas; SC 263: ?Ma -ga'a (cf. -ga *die*) ECu: *-gši (EC_B 167)

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English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
kill₂					ḥaamiis	from Ir v. ḥaam *go far away*, *get lost* (KM 147)
kill₃				slarʕaas *kill*, *extinguish*	slarʕaas *kill*, *extinguish*, *silence*	
kill₄			tsuʕ- *kill animal*			KM 301: *tsuʕ; SC 177: Da t'uuʕ- id.
45. *knee*	guruṅgura (D) guruŋgura (F)		gurungura		gurungura, pl. gurun-geeri	KM 122: *guruguunda cf. Hadza gurunguri; SC 239: Al gurunguda, Da gilli id.
46. *know*	xuu- (F)		xuw-	xuu'	xuuʔ	KM 323: *xu'; SC 333: Al, Bu xuw-
47. *leaf*	loʕo (F)		loʕi	looʕi, pl. looʕoo	looʕi, pl. looʕoo	KM 196: sgt. *looʕiya, pl. *looʕóo; SC 206: Da luʕ- *produce offspring*
48. *lie* (*down*)	kʕăt (D)		qat-	qaat *lie down*, *sleep*		KM 231: *qaat; SC 368
49. *liver*	da'ẹ (D) de'e (F)	dá'âye, pl. dá'âydu	da'aye		da'ayee, pl. daeedu	KM 79: *da'ayee; SC 345
50. (*be*) *long*	ka-tṣir (D) tler (F)	tleer, pl. tlet	tler	tleer	tleer, pl. tlet	KM 281: *tleed, pl. *tledd; SC 216: Ma'a -hlerú *grow up*; ECu: *ḍeer- (LEC 109)
51. *louse*	itir-mo, pl. itna (F)		itirmo, pl. itna		it(i)naa *lice*	KM 167: coll. *'itaa, sgt. *'itinoo/*'itidimo; SC 290: Da 'iṯṯóni, pl. 'ìtta; ECu: Ya intɔni *caterpillar*; CCu*int- *louse*; Beja taat id.

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
52. *man₁*					ʕawa, pl. ʕawaá & ʕawang	
man₂					gitla	SC 364
man₃	hawăta *Mann* (D)	ḥáwâta *husband*	ḥawata *man, husband*		ḥawaata *male, husband*	KM *ḥawata; SC 299, 386: Da ḥaajo
53. *many*	yare-ma (F)		yarir		yaaríit	KM 329: *yaariir
54. *meat*	fu'unay (D) fu'unai (F)		fuʔuni	fu'ni, pl. fu'naay	fu'naay	KM *fu'unay / *fu'umay < Or fooni
55. *moon*	ṣăhao (D) tl/hlahaŋ⁽ʷ⁾ (F)	hlâhaŋw, pl. hláhéeri	hlahaŋ		slaḥaangw	KM 256: *slaḥaangw, pl. *slaḥeeri; SC 212: Al hlehe = hleeḥee (M), Bu hleḥeŋ = sleḥeŋ (K); Ma'a mhlíhe; ECu *leʕ/h- (EC 21)
56. *mountain₁*	ṭ/ṣoma (D) tloma (F)	tlôma, pl. tlôm'i *hill*	tloma	tlooma, pl. tlomu'	tlooma	KM 283: *tlooma; ?NOm: Maji ṭumu id. (Bd)
57. *mouth*	ăfa (D) afa (F)	afa, pl. afe	afa	'afa, pl. 'afee	afa, pl. afee	KM 48: *'afa, pl. ᵒa'i SC 281: Da 'áfo id. ECu *'af- (EC_B 23); CCu *'äf-; Beja yaf
58. *name*	uma (F)	ûma, pl. ûme	uma	'uma, pl. 'umee	uma, pl. um(ʔ)ee	KM *'uma; SC 377; Me 333: Bu űmăgǒk *What is your name*? + EC_B 139: *magʕ- *name*
59. *neck*	isaχ (D) isa (F)		isa	'isa, pl. 'isoo	isa, pl. isoo	KM 166: *'isa; SC 283
60. *new*	abɛn (F)		ʕaben		ʕaben	KM 46: *ʕab, pl. *ʕaban < *ʕababan; SC 376

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
61. *night₁*		Go amsi	amsi		amsi'	KM 55: *'amasi SC 297: Ma'a ama id. Beja amas *night, late evening*
night₂	χwera (D) xwera (F)	xwéera, pl. xwéer'du	xwera	xweeraa, pl. xweer(a)du'	xweeraa, pl. xweerdu	KM 326: *xwayraa; ? < ENil *-kuari- (TLM 401)
night₃					axweesoo *(8–10 p.m.)*	from v. *axwees *to talk* (KM 64–65)
62. *nose*	duṅga (D) duŋga' (F)	dûnga, pl. dúngáwe	dunga		duunga?, pl. duungi?i	MK 310-11: *uruunga, pl. *uruunga'i; SC 192; ?ECu *ur- *smell* (EC_B 184; Me 333)
63a. *no*			hla'ay (SC 209)		aasla'áy	
63b. *not*	ma- (F)				ma+V	Ki 382; KM 205: *maw *leave*; SC 323: ECu *ma' (EC 52)
63c. *not*					-ká	Ki 382
64. *one*	wăk (D) wak (F)		wak		wak	KM 314: *wak SC 312: Ma'a wé *one* cf. SC 311: Da wátte *other* : wáttukwe *one*
65. *person₁* (*homo*)	hẹ (D) he *man* (F)	hee	he	hee	hee	KM 135-36: *heedi, pl. *hida; SC 307, 386: *hed- > Ma'a mu-he
person₂		mu (pl. of hee)	mu (pl. of he)	muu (pl. of hee)	mu (pl. of hee)	KM 209: pl. *muu *people, persons*; SC 160: Ma'a m-mú *person*, va-mú *people*; cf. ECu: El mó id., Arb mó(h) id., *man*
person₃	ẹmẹt, imẹt *people* (D)			'eemée *people*	eemeét *people*	SC 294–95: Ir imi *people*, Al imi *crowd*

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
66. *rain₁* n.	ṭuai (D) tluway (F)	tlûway	tluway	tluwaay	tluuw(ay)	KM 284-85: *tlubay n. vs. *tlub- v. SC 217: Da v. luβ-; ECu *çub- *dip in* (EC 30)
rain₂ n.			dom'i *rainy season*			KM 97: *doomu; SC 220
67. *red₁*	da'ăt (D) daʕat (F)	daʕat	daʕat		daaʕaat	KM 78: *daaʕat, from *daʕ *burn*; SC 345
red₂				dararʕaat *reddish*	dararʕaat	from Ir v. daraaʕ *to roast over the open fire*
68. *road₁*	lohi (F)	lôhi, pl. lô(u)hu	lohi	loohi. pl. lohu'	loohi, pl. lohu	KM 195: *looh- v. *migrate*; SC 206: Da lée id.; Qw lohis- *move house*
road₂					irwa, pl. -du	Ki 508; ECu: Ge ora id.; NOm: Gonga *wor- id.
road₃					duuruuxmo	from Ir v. duurux *drag*
69. *root*	deʕar (F)		deʕarmo	deeʕaar(a) mo pl. deeʕár	pl. deeʕár	KM 90-91: col. *deeʕaaru, sgt. *deeʕaarimo; SC 189: Da dăáʕero *neck*
70. *round₁*	(har)wer- -mu (F)		harwer- *go round*	harweer *go around*	harweer *encircle*	SC 337: ECu: Som wareer- *be giddy*
round₂					gumbalala	
be round₃					gwan-gwaraa'aat	KM 126: *gwan-gwaraa'at *be round*
71. *sand*	ḥasam (F)		hasaŋ		ḥasaangw, sgt. ḥasiito?o	KM 150: *ḥasaangw; SC 381; ECu: Som ḥaš *powder* ?Di huss *earth* SC 335: Beja haš *sand* (Bd), haaš *earth* (Ro)

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
72. *say₁*					ilaawaats	
say₂					kaah	KM 169: *kaah *speak* Bu kaah (K)
say₃	o- (F)		o-	'oo'	oo'	KM 219: *'oo'; SC 319: Ma'a -yo; Da joom-
say₄	χoesan (D)					
73. *see₁*	ar- (F)		ar-	'ar	ar	KM 58: *'ar; ECu: Du *'ar- *know*; CC: Bilin ar- *find*; Beja iraay *know* (Eh 87); NOm *'ar- *know*
see₂	ĝa'ao (D)					
74. *seed(s)₁*	dahasi-ŋ (F)			dahaasiingw	dahasiingw	KM *dahas v. *plant* < v. *dah *move into*
seed(s)₂				waraari, pl. waraangw	waraari, pl. waraangw	KM 315: sgt. *waraari, col. *waraangw *(pumpkin) seed(s)*
75. *sit₁*	iy̱it (D) iutanaŋ (F)		iwit-		iwiit	SC 289; KM 157: *'ibiit
76. *skin₁*					fala, pl. faloo	KM 104: *fala; SC 150
skin₂	kahari (D) kahari (F)		kahari		kahari, pl. kadu	KM 169: *kahariya, from adj. *kahar *dry*
77. *sleep₁* v.			gu'ut-	guu'	guu'	KM 120: *gu'; SC 239: Da gii̱t- id.; ECu: Si go̱t- id.
sleep₂ v.	qata (F)					→ *lie*
78. *small₁*	nina (D) nina (F)	niina, pl. niinakw	nina	niina	adj. niina, pl. niinakw	KM 217: *niinaw; SC 292: Ma'a m'inyí; ECu: El ninina, Ds niní; Ya -ni'in
small₂					v. nassut	Ir naasú *a pinch of*

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
79. smoke₁ n.					tsaangw	KM 287: *tsaa'aas *shine on*, *give light*; cf. Ir tseeʕamá *sunshine* < *tseeʕamá (KM 295)
smoke₂ n.	γui (D) qui (F)		qu'i	quu'i	quui id., *fog*	KM 235: *quu' *emit smoke*; SC 254; ECu n. *qayʕ- *smoke* (EC_HL 79)
80. stand₁	siḥtano (F)		seḥit-		siḥiit	KM 249: *siḥ-it-, cf. Ir v. siiḥ- *erect*, *make stand*; ECu: Di soh-aḍ- *stand*
81. star	ṣeṣeʕ (F)	tsátsée'ʕi, pl. tsátsâ'o	tsatse'i	tsatseeʕi, pl. tsatseʕ	pl. tsatsaʕ & tsitsíʕ	KM 300: *tsitsaʕiya, pl. *tsitsaʕu SC 226-27: cf. Al tsa'as- *give light to* (better *tseeʕamá *sunshine*; KM 295), Qw sa'- *burn*
82. stone₁	ṭa'á, pl. ṭṣa'e (D); cf. ṭa'ano *Gestein* (D) tlaʕanu (F)	tlá'ʕâno, pl. tlâ'ʕe	tlaʕano		tlaaʕano, pl. tlaaʕ-ee, -ay, cf. tlaaʕa *rock*	KM 273: *tlaaʕa; SC 359; ECu: Som ḍuʕun ~ ḍuḥun *flintstone* (Re; see Me 333); ?Beja ḍa' *horn*
stone₂				tsingár *small sharp stones*		?CCu: Bilin dängʷəra, Khamir dəgʷəra *stone* (Re)
83. sun₁			laantá	laantá		KM 191: *lala'itu SC 203: Bu letu; ECu: Mashile latta, Ko letta, Di lašš
sun₂	lo'a (D) lo'a (F)			loo'aa *sun, day, God*	looaa	KM 191: *lala'oo; SC 203: Ir lala'a *God*, Al lele'a *sun*; ?ECu: Sa lelleʕ *day*, Af loʕo *daytime*
sun₃	tse'ăma (D)	tséé'âma	tseʔama	tseeʕamá	tseeʕamá *sunshine*, *midday sun*	KM 295: *tseeʕamá cf. KM 296: *tsiʕ *get burnt*

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
84. *swim₁*	warḥema (F)		waraḥem-			SC 346: pref. *wa- & *daḥ-, cf. Al (redupl.) daraḥasu *fish*; SC 325: cf. ECu *zak- (EC_Z 140)
swim₂					tumbiim	KM 273: *tumbim
85. *tail*	ḥaiso (F)	ḥáyîso, pl. ḥáyîse	ḥayso		ḥaysoo, pl. aysee	KM 151: sg. *ḥaysoo, pl. *ḥaysaʼi/*ḥaysasu SC 379: Al, Bu ḥayiso
86. *that₁*	-ga (F)	qá kuqa			qáʼ	Wh 59–60; Mo 90
that₂		da kuda			dáʼ	Wh 59–60; Mo 90
that₃		sing			síng	Wh 59–60; Mo 90
87. *this*	-wi// -ri/-ti (F)	m. wí/ kwí ntr. ká f. rí/tí	m. wi ntr. ka f. ti		m. -(w) í/-kwí ntr. -ká f. -rí/-tí Mo 90	SC 311, 296, 289: Al wi m. Bu ki / ti m. / f. Da ʼuukwa / ʼiiṯa
88. *thou*	ku(ṅ) (D) m. kuṅ f. kiṅ (F)		m. ku / f. ki		m. kuúng f. kiíng	KM 180, 175: m. *kuu, f. *kii; SC 243, 245–46: Da ku/ki; ECu obj. *ku /*ki; cf. ECu: Ds kúúni, Ar ké, El kesé; Ya ʼaáçuk *thou* < *ʼa-ki-ku; CCu acc. *kʷət; Beja bar-uuk *thou*
89. *tongue₁*	tsʼefirako (D) ṣifraŋ (F)	tsífîraŋw, pl. tsifîréeri	tsifraŋ	tsifraangw, pl. tsifreeriʼ	tsifraangw	KM 302: *tsufiraangw pl. tsufireeri; SC 196
90. *tooth₁*	seḥeno (D) siḥno (F)	síḥîno, pl. síḥîna	seḥno	siḥnoo, pl. siḥnaʼ	siḥinoo, pl. siḥnaʔ	KM 249: *siḥinoo SC 180:
91. *tree₁*	χano, pl. χaʼi (D) xatlno (F)	xáʼâno, pl. xáaʼi	xaʔano	xaʼnoo, pl. xaaʼiʼ	xaʼ(a)no, pl. xaai	KM 320: *xaʼinoo, pl. *xaʼi; SC 256: Maʼa mhatú / mxatú

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
92. *two₁*	ts'ăr (D) ṣar (F)		tsar		tsár, cf. tsadiit *be two*	KM 288: *tsada; SC 229, 386
93. *warm₁*	axunai (F)			adj. 'axwan	adj. axwan	
warm₂			v. hames-	v. hamees-	v. haam (*of water*)	KM 130–31: *haam *be hot*, *hamée *heat*; SC 299
94. *water*	ma'ái (D) ma'ai (F)		ma#ay		ma'ay	KM 197: *ma'ay; SC 156: Ma'a ma'í; Da mà'a
95. *we*	ata (incl.) (D) atɛn (F)		aten		atén *we, us*	KM 62: *'atén, perhaps from *'aten-na? *ye with us* cf. Da 'àtta (SC 282); ECu *ʔatin- *ye* (EC 11)
96. *what₁*	amila (F)		amila		milá	KM 200: *mala; SC 158: Al mi; Qw homi; Ma'a mina; Da máka (SC 155); ECu: Or W, Bor maal, Macha, Harar maali < ECu *maʔ- *what* (EC_B 146)
what₂					umás	
97. *white*	awăk (D) awak (F)		ʕawakw		ʕawáak, pl. ʕawak	KM 47: *ʕabaakw, derived from *ʕab *new*?; SC 376
98. *who*	a-he-ma (F)		ahema		heemá	SC 153: he *person*, cf. amaga *how many* : ga *thing*; Ma'a -hamá *which*
99. *woman₁*	ameni (D) amɛni (F)	ámêni, pl. ámêna, cf. áama *old woman*	ameni		ʕameeni cf. aama *wife*	KM 54: *'aama *mother*; SC 282; cf. ECu: Ds mìnnì *woman*; Bj ammána *women*, Si ama *woman* (EC_B 140, 25)

English	Dempwolff Fleming	Whiteley	Ehret	Maghway	MQK	etymology
woman₂						KM 270: *tigay; SC 283: ?Da 'át̯ika *buffalo cow*; Beja tak, pl. tika *man*, takat *woman* (Re)
100. *yellow₁*					sirraraʕaat, pl. sirʕaaten	?HECu 339: Kb šiirit *black and white*; ?CCu *sär- *red*
yellow₂	ṣe'at (F)	tsee'at	tse'at		tseeʕaat, pl. tseeʕaten	SC 355: Qw tsa'at- *white*
*101. *grass*	gie'o (D)		gitsemi (SC 235)	gitsiimi, pl. gitsoo	gitsoo	KM 117: *gitsoo, sgt. *gitsiimi
*102. *snake*	deišimo & daisimo (D)	dáyšâmo, pl. dâyše			dayšimo, pl. dayšee	KM 90: *daysu; SC 225; cf. NS: Koman: Koma dàašó', Twampa tašá' id. (Bd)
*103. *thin₁*				v. nehuut	v. nehuut *become thin*	Beja nehaw *become thin, weak* (Eh 108)
thin₂					v. kangaʕuut	
*104. *three*	tăm (D) tam (F)			tám	tám	KM 267: *tami; SC 290: Da 'ít̯taant̯óóni *third day after tomorrow*
*105. *wet*			adj. naʕar-	adj. naaʕ	v. naaʕ cf. naaʕari *wet land along river*	KM 213: *naʕ SC 352; ECu: ?Arb ňoor *mud*
*106. *ye*	m. kuṅga (F) f. kiṅga (F)				kuungá'	KM 183: *kuungaa'i; SC 247: Ma'a kúné id. Da kuná *your*; EC_B 173: *kun- / kin- *your*; Beja baraakna *ye* (Re)

Wordlist II: Other South Cushitic languages

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
1. *all₁*						
all₂	slehéem	sloome	(sliiima / slaama wholeness)		-	KM 261: *sliima cf. Ir sleemee *also*
all₃			gong			SC 236: Ir gaŋ *very much*; Da gààna *big*
all₄				wataka		cf. "1"
2. *ashes₁*	daʕaraa				-	KM 78: *daʕaraa; cf. ECu *darʕ- id. (EC 16; SC_F 21)
ashes₂						
ashes₃		ʕura	ʕura	wurato		KM *ʕura; SC 387: Ma'a i'ora
3. *bark₁*	qafi	qafaa'i / qafari	qafira	-		KM 228: *qafiya, pl. *qafoo; SC 368; SC_F 21: CCu *qaf- id.
bark₂					pa'uko	SC 143: Da pák'o
4. *belly₁*	gura'	gura'a	gura'a	-		KM 122: *gura'a; SC 239; ECu *gur'- *udder* (EC_B 86); CCu: Awngi guriaŋχε *navel* (Wedekind)
belly₂					a'iye	SC 387

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
5. *big₁*	'ur	('ur in negations)			(?ulungayo *wide*)	KM 309-10: *'ur, cf. *'uraw *grow up*, *become adult*; SC 295: Ma'a uda *far*; ?ECu: Bj wod- *grow* (EC_HL 62)
big₂		da(a)adir	didir	jira	dire	KM 96: *dir; SC 188: Da ɗar- *increase*
6. *bird₁*	tsirʕi	tsiraʕi	ciraʕa	šira'a		KM 299: *tsiraʕa SC 226; ECu: Or çirrii, HEC 27: *çiiɗa- id.
bird₂					desito	SC 386
7. *bite₁*	kiḥ	kiḥ	kiḥ		?k'a-	KM 175: *kiḥ; SC 252: Da k'aḥ-
bite₂				jalas-		SC 388
8. *black₁*	booʕ	booʕ	booʕ			KM 74: *booʕ, pl. *boʕ; SC 388
black₂				-biasa	-abesu	SC 388
black₃				tulut-		SC 170: Da ṯíílali *shadow*
9. *blood₁*	tseeree	tseeree	ceedee			KM 295: *tseedee; SC 199: Da ts'íraara'e *red*
blood₂						
blood₃				sa'aka	sa'uko	SC 179, 386: Ma'a sakó / saxó
10. *bone*	fara	fara	fara	farit	fala'ato	KM 104–05: *fara, pl. *fararu SC 150: Ma'a ifwára id.; cf. ECu: Som feeɗ, Jiddu feer, Boni fée(r)ɗ *rib* (Sm 81)

English d. source	Gorowa [KM]	Alagwa [KM]	Burunge [KM]	Asa [SC]	Qwadza [SC]	etymology
11. breast₁	ʼisaamó	ʼisaʼamu	ʼisaang	isank		KM 166: *ʼisangw, pl. *ʼiseemi vs. *ʼisaʼamu *nipples*; cf. pKhoe *sam *female breast* SC 283: Maʼa iʼasemu; ?CCu: Aw əšew *heart*; ?Beja ésse *belly* (Re)
breast₂	(daʕawi *chest*)	(daʕabi *chest*)				KM 78: *daʕaba; ECu: ?Som ḍab *lap*, Afar ḍabʕe *armpit* Beja daba *chest, breast*
breast₃					nyaʼati	SC 232, 387
12. burn₁ (trans.)	daʕ	daʕ	daʕ	daʼ-		KM 77–78: *daʕ; SC 345; ECu: Afar diyyi *carbon*, Ya daai *fire-stick*; Beja diʼɛ́ *brand*
burn₂	ʼooh	ʼoh	ʼooh			KM 221 *ʼooh; SC 294; ECu: OrW adj. oʼʼaa-, Macha hoaa, Bor owwaa *warm, hot*
burn₃						from Ir v. haam *be hot, warm* (KM 130)
burn₄					saʼ- (tr.) saʼim- (intr.)	SC 388

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
13. *claw₁*	fuqnó					KM 110: *fuqunoo; cf. *faanqu *hoof* & *fuunqaaru *pair of hooves* (KM 104, 110; SC 152); maybe also ECu: Rd góffan, Arb kunúf, El kúnuf *claw*, Ds kònòf *hoof*
claw₂		tsarafu	carafu			KM 292: *tsarafu; SC 329: CCu: Awngi tsɛfir
claw₃				senget		SC 387
claw₄				tse'uko (tsa'amuko *hand*)	KM 287: *tsaʕay > IrGo tsaʕay Al daba-tsaʕay Bu daba-caʕay *palm of hand*; cf. Sandawe ts'waʔa *claw*, *nail* (Kagaya)
14. *cloud₁*						cf. Da winku < Sw wingu id.
cloud₂	tlafi	tlafi	tlaafimo			KM 274: *tlafiya, pl. *tlafoo; SC 214
cloud₃	(<u>tlangú</u> *fog*, <u>tlangwi</u> *misty cloud*)	(<u>tloonga</u> *fog*)	<u>tlongiya</u>, pl. <u>tloonga</u>		tlungawa	KM 278: *tlaangwiya, col. *tlaangwa; SC 217: Qw tlungato *sky*; cf. Sand tl'ung'gu *cloud*, tl'wang' *rain*
cloud₄				buʕurita		SC 387

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English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
15. *cold₁*	(tsa'uw *become cool*)		(ca'u *wind, cool breeze*)		tsa'u	KM 286: *tsa' adj. *cool*, *tsa'aw v. *become cool*; SC 176: Ma'a sa'a *cold, wind*
cold₂	tsaaqwa	tsaaqwa	caaqwa	šo'ok		KM 292: *tsaaqwa; SC 173; cf. also Bu caqomo; Da t'ókkoome id. (SC 176)
cold₃						
16. *come₁*	daqaw					KM 88: *daqaw *go* : Bj ḍaḳab- *arrive*; SC 189: Da ḍàkw- *be going*; ECu *daḳ- *go* (EC_B 51)
come₂	xaw	xaw	xaw			KM 320: *xaw; SC 256: ?Ma'a -hwá'a *return*
come₃						Bu kwalē'! id. (D) ?ECu: Sam *káálèi! id. (Sm 87)
come₄	(dah *enter*)	(dah *arrive*)	(dah *arrive*)	dah-	dah-	KM 82: *dah SC 164; Beja da *enter*
17. *die₁*	gwaa'	gwaa'	gwaa'	ga-	gwa'-	KM 123: *gwaa'; SC 263: cf. Asa gawa *death*; Ma'a -ga *die* ECu: Som go', Ba gue
die₂		(qatl *be finished*)	(qatlis *finish completely*)			KM 232: *qatl ?ECu: Som qaḍid *die out* or EC 49: *qal- v. *slaughter*

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
18. *dog₁*	soo'ay				(sa'aku *wild dog*)	KM 251: *soo'ay; SC 350
dog₂		gwiḥira	gweḥera			KM 127–29: *gwiḥira, from *gwiḥ *to bark* > Bu guḥ id.
dog₃				kite		SC 385-86: < Chaga
dog₄					ka'uko	SC 385-86: < Sand kaka
19. *drink₁*	wah	(wah {cattle only}; waha *drinking*)	waham (wah {cattle only}; waha *drinking*)			KM 313: *wah, dur. *waham SC 313: Ma'a -waha; SC_F 24: HECu *wa'- *water* (HECu 164) < ECu *waʕ- (EC_B 186)
drink₂						SC_F 23: Ma'a go-*suck*
drink₃		kitaḥ	kitaḥ			KM 178: *kitaḥ
drink₄				wat-	wat-	SC 383: with *wah
20. *dry₁*	kaahar v. kah	kahar v. kah	v. kah			KM 169: adj. *kahar, from v. *kah; SC 242: Ma'a v. -kahí *dry* ECu: Du *kaḥ- *be dry* (Eh 128)
dry₂	('ageengw *dry season*)	('egee *dry season*)	('ageeng *dry season*)			KM 51: *'ageengw ECu: Som engeg-, Bo aneg-, Rd angag- v. *dry* (EC_B 169)

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
dry₃		karaḥ *be dry & hard*	karaḥadi karaḥ *be dry & hard*		kalahayi	SC 366, 388 KM 172: *karaḥ cf. ECu: Som qaraḥ *dry* (DSI)
dry₄		xala'				SC 388: Ma'a -hala'e
dry₅				-rakaš		SC 388
21. *ear*	'ii'a	'ee'a	'ee'a	ʔyatara	ʔwato	KM 156: *'ii'a; SC 289: ʔAsa yot- *hear*; Da 'eeṯiṯ- id.; ECu: SaAf *'ayti *ear*
22. *earth₁*	ḥapee	ḥapee	ḥapee			KM 149: *ḥapee
earth₂	yaamu	yaamu	yaamu			KM 329: *yaamu; SC 315: Qw hamuko *under*; Da jem- *stay in a place*
earth₃				hajat		cf. *sand*
earth₄					sa'amuko	SC 387
23. *eat*	ʕag	ʕag	ʕag	'agim-	ag-	KM 50: *ʕag, dur. *ʕagim; SC 275: Da ʕag- id.; cf. Qw agoto; Ma'a ki'agú; Da ʕàga *food*; EC 17: *ʕa/i/ug- *drink*
24. *egg*	qan'i	qana'i	qana'iya	-	ʔkaketo	SC 253, KM 229–30: *qanaḥaa/*qana'iya; Ma'a ikokóha; Da ʕógohi; ECu *'ukaaḥ-; Beja kuhii

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
25. *eye*	’ila	’ila	’ila	’ilat	ilito	KM 158: *’ila, pl. ’ilaa; SC 293: Ma’a i’ilá; Da ’ìla; ECu *’il- (EC_B 104); CCu *’əl-; Beja liilii
26. *fat₁*	diʕi	duʕi	duʕiya			KM 99: *duʕiya; SC 165: Asa da’ara *heavy*; Da ḏeʕʕem- *be fat*; ECu: Ya -dee’ɛu’ *fat*
fat₂						KM 62: adj. *ʕatlar, from *ʕatl *be mature*, fully grown; SC 275
fat₃		waḥana	waḥana			Al v. waḥar (M), n. waḥani, Bu waḥana *animal fat* (KM 314)
fat₄				’ore’ek		SC 298: Ma’a mweré
fat₅					ahlito	SC 285: Da áli
27. *feather₁*	hayi	haayi	haaya	(haya *feathering of arrow*)	-	KM 134–35: *haaya, pl. *hayaa; SC 381
feather₂				se’emuk		SC 386
28. *fire₁*	’asla	’asla	’asla			KM 61: *’asla; SC 297: Ma’a mwáhla; ?ECu: Ba elen id., HECu *eeliin- *sun*; CCu *aläl- *burn* (Eh 81)
fire₂				yogot		SC 318: Da ’èèga; cf. Ir ’akwesi, Go ’akesi *hearth-stone* (KM 52) ECu *’eeg- (EC_HL 62)
fire₃					xa’o	SC 387; cf. *tree*

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
29. *fish₁*	siyó					< Mbugwe siyé < Bantu *túí (KM 251)
fish₂		samaaki	samaaki			
fish₃		daraḥasu				SC 386
fish₄				singiri		SC 385–86: < Maasai
fish₅					tsumayi	SC 194, 386
30a. *fly₁* n.	ba'ár	ba'ara	ba'ara		-	KM 67: pl. *ba'ara, sgt. *ba'ariya; SC 147: Qw pa'aliko *flying termite*; Da pl. p'aara *termite*
fly₂ n.						KM *masaasakwamo *small black ant* cf. Bu mạsasók (D)
fly₃ n.						
fly₄ n.		(tikaʕi *tsetse fly*)	(tikaʕiya *tsetse fly*)	šike'e		SC 169; KM 271: *tikaʕiya
30b. *fly₁* v.	ʕakuut					KM 52: *ʕakuut
fly₂ v.	tlaw	tlaw	tlaw			KM 280: *tlaw; cf. ECu: Or ḍaab-*erect*; SC 216
fly₃ v.		tso'ot	jo'od	ji'it- *fly, jump*		KM 301: *tso'ot; SC 353
fly₄ v.			tlaʕas- *fly, jump*			SC 215
fly₅ v.					tsal-	SC 388
31. *foot / leg*	yaa'ee	yaa'ee	yaa'ee	ye'e	ya'o	KM 328: *yaa'ee; SC 384

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
32. (*be*) *full₁*						
(*be*) *full₂*	hats v.	hats v.	hac- v.	haš v.	-	KM 134: v. *hats SC 381: Qw hatsumo *much*; ECu: Du *h/xuç- *full*
33. *give₁*	hariis	haris	hadis			KM 129–30: *hadis; SC 305
give₂	(qaw *graze*)		qaw			KM 232: *qaw
give₃				nge *give*!		SC 388
give₄					ahem-	SC 388: cf. Da hee'-?
give₅					lo'-	SC 388
34. *go / walk₁*	'aw *go to fetch*	'aw *go to fetch*	'aw *go to fetch*			KM 63: *'aw *go to fetch*
go / walk₂		kaw *go to*	kaw *go to*			KM 174: kaw *go to*; ECu: Som kooy-, Ba ko(i), Or kooti, Ko xoyi *come* (EC_{HL} 110)
go / walk₃					tlag-	SC 359
go / walk₄		ha'ut				SC 388: cf. Da haʕ- *come*
go / walk₅	hi'iit					KM 136: *hi'it; ?ECu: Arb 'i'it-, El iit- *walk*
go / walk₆		xots	xoc			KM 323: *xots
go / walk₇				nde *go*!		SC 388
35. *good₁*	ḥo'	ḥo'	ḥo'			KM 154: *ḥoo'; SC 302: Ma'a -ha *good*

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English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
good₂						cf. Ir v. qoom *fit, be alike, equal* Al qoma'itis-*match* (SC 292-93; KM 234)
good₃						
good₄		boʕot				SC 388
good₅				-'ila	a'ela	SC 284–85, 388
36. *green₁*	qaantsaar	qaantsar	qaancar		qandza	KM *qaantsar vs. *qaantsa *something wet or moist*; SC 250; ECu: Som qanjiḍ *halbreifer Zustand* (Re; Me 262)
green₂				-jareta		SC 354, 388
green₃					tsalam-	SC 354, 388
37. *hair₁*	se'eengw			se'emuk *hair, feathers*	sa'amayo *body & limb hair*	SC 350; KM 247: sgt. *se'eemi, col. *se'eengw
hair₂			(boora *goat's beard*)			KM 75: *boora ECu: Som baar *hairs of the camel's hump*; Beja băr *camel-hair*
hair₃		quubu	quubu			KM 235: *quubu
hair₄					tsatamuko	SC 386
38. *hand₁*	dawa	daba	daba			KM 79: *daba; SC 162: Da ḍaβa id.; ECu *zaab- *handle* (EC_Z 139); Beja dábi *handle* (Re)

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
hand₂	(tsaʕay *palm of hand or foot*)	(dabatsaʕay *palm of hand*)	(daba-caʕay *palm of hand*)			KM 287: *tsaʕay SC 173; Qw tse'uko *fingernail* cf. Sand ts'waʔa *claw*, *nail* (Kagaya)
hand₃				mongok		SC 160: ?Da miggi
hand₄					mudza'ikuto	SC 387
39. *head*	saga	saga	saga	sogok	sagiko	KM 243: *saga; SC 350; ECu: Or sagoo *back of head*; CCu: Aw seg *higher part* (Eh 141)
40. *hear₁*	'axaas	'axas	'axas	has-		KM 64: caus. *'axas- SC 288
hear₂		('iitiimis *listen to*)	('ititis *listen to*)	yot-		SC 388: Da 'eeṯiṯ-id. KM 167: *'ititis
hear₃					kekem-	SC 388: Ma'a -ko id.?
41. *heart*	muuná	muuna	muuna	monok	munako	KM 210: *muuná; SC 159: Da mùna id.; ECu: Sam *minḍiqar *intestines* (Sm 91); Beja mána *bowels*, *intestine*, *viscera* (Rp)
42. *horn*	xarmó	xarimoo	xadaang	hadonk	xalinko	KM 318: *xadamu / *xadaangw; SC 256: Ma'a lu-haremú / -xaremú id.

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
43. *I*	ʾaning	ʾana	ʾana	(-ana *my*)	-	KM 56: *ʾana; SC 283: Maʾa ání; Da ʾányi; ECu *ʾan-i/-u; CCu *ʾan-; Beja ane id.
44. *kill₁*	gaas	gaas	gaas	gas	gaʾis	KM 114: *gaas; SC 263: ?Ma -gaʾa (cf. -ga *die*) ECu: *-gši (EC_B 167)
kill₂						from Ir v. ḥaam *go far away*, *get lost* < *ḥaam (KM 147)
kill₃						
kill₄	tsuuʕ	tsuʕ	cuʕ			KM 301: *tsuʕ; SC 177: Da tʾuuʕ-id.
45. *knee*	guruunguraʾ	guruguunda	guruguunda	ŋuluet	kunguluʾiya	KM 122: *guruguunda cf. Hadza gurunguri; SC 239: Al gurunguda, Da gilli id.
46. *know₁*	xuʾ	xuʾ	xuʾ			KM 323: *xuʾ; SC 333: Al, Bu xuw-
know₂				šah-		SC 388
know₃					balat-	SC 135, 388: Da bar-
47. *leaf₁*	looʕi	looʕi	looʕiya	-		KM 196: sgt. *looʕiya, pl. *looʕóo; SC 206: Da luʕ- *produce offspring*
leaf₂				debiya		SC 190: Da dĕβere *greens*

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
48. *lie* (*down*)	qaat	qaat	qaat	’at-	k’at-	KM 231: *qaat; SC 368
49. *liver₁*	da’ayee	da’ayee	da’ayee	ʔdowo		KM 79: *da’ayee; SC 345
liver₂					dangalayito	SC 387
50. (*be*) *long₁*	tleer	tleer	tleed			KM 281: *tleed, pl. *tledd; SC 216: Ma’a – hlerú *grow up*; ECu: *ɖeer- (LEC 109)
long₂				-jada		SC 386
long₃				ba’ati		SC 386
51. *louse₁*	’itnó	’itinoo	’itinoo	pl. ’ita		KM 167: coll. *’itaa, sgt. *’itinoo/*’itidimo; SC 290: Da ’iṯṯóni, pl. ’ìtta; ECu: Ya intɔni *caterpillar*; CCu*int- *louse*; Beja taat id.
louse₂					daliko	SC 386
52. *man₁*						
man₂						
man₃	ḥawaata	ḥawata	ḥawata	hatuk		KM *ḥawata; SC 299, 386: Da ḥaajo
man₄					walatuko	SC 386
53. *many*	yaariir					KM 329: *yaariir
		naʕ				SC 386
			waʕa			SC 386: wa’a
				-ša’i		SC 229, 386: cf. Ma’a -ša *very* (*much*)

English d. source	Gorowa [KM]	Alagwa [KM]	Burunge [KM]	Asa [SC]	Qwadza [SC]	etymology
					hatsumo *much*	KM 134: v. *hats SC 381; ECu: Du *h/xuç- *full*
54. *meat₁*	fu'unay	fu'umay	fu'umay			KM *fu'unay / *fu'umay < Or fooni
meat₂				'aga		SC 386; cf. *eat*
meat₃					taxelato	SC 349, 386
55. *moon*	sleḥeengw	sleḥee	sleḥeeng	lehek	hlahayiko	KM 256: *slaḥaangw, pl. *slaḥeeri; SC 212: Ma'a mhlíhe; ECu *leʕ/h- (EC 21)
56. *mountain₁*	tlooma	(tlooma *temple*)	(tlooma *temple*)			KM 283: *tlooma; ?NOm: Maji ṭumu id. (Bd)
mountain₂	(daanda *back*)	daanda	(daanda *back*)			KM 86: *daanda; SC 329; cf. ECu: Or randa *slope* or Sand dzàndzà *middle back*
mountain₃			'oong, pl. omeri		onko, pl. óom (Claus)	SC 276: Da aŋilá *up*, *above*
mountain₄				de'ok	(du'ama *hill*)	cf. stone (SC 221, 359)
mountain₅					lingiyo	SC 387: Ma'a longori
57. *mouth*	'afa	'afa	'afa	'afok	afuko	KM 48: *'afa, pl. °a'i SC 281: Da 'áfo id. ECu *'af- (EC_B 23); CCu *'äf-; Beja yaf

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
58. *name₁*	'uma	'uma	'uma	'imok		KM *'uma; SC 377; Me 333: Bu űmăgŏk *What is your name*? + EC$_B$ 139: *magʕ- *name*
name₂					solongayo	SC 387
59. *neck₁*	'isa	'isa	'isa	isat	isito	KM 166: *'isa; SC 283
neck₂				mirut		SC 387
60. *new₁*	ʕab	ʕab	ʕab	'amba		KM 46: *ʕab, pl. *ʕaban < *ʕababan; SC 376
new₂					ko'of-	SC 388
61. *night₁*	'amsi	'amasi	'amasi	(amasiya *tomorrow*)		KM 55: *'amasi SC 297: Ma'a ama id. Beja amas *night, late evening*
night₂		(xwayróo *work done in the evening*)				KM 326: *xwayraa; ? < ENil *-kuari- (TLM 401)
night₃						from Ir v. axwees *to talk*
night₄				eramesa		SC 387
night₅					baliko	KM *baloo *day (24 hours)*; SC 134: Qw balitiko *day before yesterday / after tomorrow*
62. *nose*	duunga'	'uruungi	'uruunga	iringa	?ningwato	MK 310–11: *uruunga, pl. *uruunga'i SC 192 ?ECu *ur- *smell* (EC$_B$ 184; Me 333)

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
63a. *no*	-	-	-	-	-	
63b. *not* imper.	ma+V	maarée+V	maw+V			SC 323: ECu *ma' (EC 52)
63c. *not*	V-káng					(Ki 382)
63d. *not*		V-basl	V-basli			cf. Ir -wasl *without* < *basli (KM 72)
64. *one₁*	wak	wak	(wak *other*)	(?wataka *all*)		KM 314: *wak SC 312: Ma'a wé *one* cf. SC 311: Da wátte *other* : wáttukwe *one*
one₂			leyiing			
one₃				kinde (also *alone*; *man*)		SC 244, 364
one₄					be'a	SC 136: Ma'a bí *only* cf. AlBu *bi'itee *other* (KM 74)
65. *person₁* (*homo*)	hee	hiru/hiiru	heedi	'iduk	hilako (pl. me'iko)	KM 135-36: *heedi, pl. *hida; SC 307, 386: *hed- > Ma'a mu-he
person₂	muu					KM 209: pl. *muu *people*, *persons*; SC 160: Ma'a m-mú *person*, va-mú *people*; cf. ECu: El mó id., Arb mó(h) id., *man*
person₃		(imi *crowd*)				SC 294–95

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
66. *rain₁* n.	tluway	tlubay	tlubay		v. tlub-	KM 284-85: *tlubay n. vs. *tlub- v. SC 217: Da v. luβ-; ?ECu *çub- *dip in* (EC 30)
rain₂ n.	(doomu *period of rains*)			(do'omok *year*)		KM 97: *doomu; SC 220
rain₃ n.				mijok		SC 387
rain₄ n.					hubuko	SC 387
67. *red₁*	daaʕaat	daaʕat	daaʕad			KM 78: *daaʕat, from *daʕ *burn*; SC 345
red₂						from Ir v. daraaʕ *to roast over the open fire*
red₃				-huma		SC 388
red₄				-dili'i		SC 346: Qw deles- *yellow*; Ir delo *day*
red₅					dimayi-	SC 325: ECu: Or diima, Saho duma id.
68. *road₁*						KM 195: *looh- v. *migrate*; SC 206: Da lée id.; Qw lohis- *move house*
road₂	'urwaa					Ki 508; ECu: Ge ora id.; NOm: Gonga *wor- id.
road₃						from Ir v. duurux *drag*
road₄	('amoo *where*)	'amoo	'amoo			KM 56: *'amoo
road₅				šimut		SC 387
road₆					k'ilayko	SC 387

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
69. root₁	deeʕaarmó pl. deeʕár	deeʕaarimo			dala'uko	KM 90-91: col. *deeʕaaru, sgt. *deeʕaarimo; SC 189: Da ďǎáʕero *neck*
root₂	(gamuungw *bottom*)	(gamaa *trunk of tree*)	gama			KM 113: *gama/u
root₃			mogengera			SC 386
70. round₁	-	-	-	-		SC 337: ECu: Som wareer- *be giddy*
be round₃		?giringirit	gwangwaraa'ad			KM 126: v. *gwangwaraa'at
round₄	-	-	-	-	balani-	SC 321: ECu: Som buur- *make round*
71. sand₁	ḥasaangw		col. ḥasoo (K) (sgt. ḥasiya *barren ground*)	hajat	hasinko	KM 150: *ḥasaangw; SC 381; ECu: Som ḥaš *powder* ?Di huss *earth* SC 335: Beja haš *sand* (Bd), haaš *earth* (Ro)
sand₂		tipa s., *clay*	(tipa *clay*)			KM 271: *tipa *covering with earth*
sand₃		seeḥináy	seeḥinay			KM 247: AlBu *seeḥináy; cf. ECu: Ts šumáḥ-to (Hy)
72. say₁						
say₂	(kaah *speak*)					KM 169: *kaah *speak* Bu kaah (K)

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
say₃	'oo'	'oo'	'oo'		om-	KM 219: *'oo'; SC 318: Ma'a -yo; Da joom-
say₄						
say₅		gimbus-	gimbus-			cf. KM 116: *giimba *speech, language* SC 237, 388: Ma'a gimbé *coversation*
say₆				šah-		SC 388
73. *see₁*	'ar	'ar	'ar	'adam-		KM 58: *'ar; ECu: Du *'ar- *know*; CC: Bilin ar- *find*; Beja iraay *know* (Eh 87); NOm *'ar- *know*
see₂						
see₃					gal-	SC 235: Ma'a -galí *try*
74. *seed(s)₁*	-	dahasi		-	-	KM *dahas v. *plant* < v. *dah *move into*
seed(s)₂	(waraangw col. waraari sgt. *pumpkin seed(s)*)					KM 315: sgt. *waraari, col. *waraangw *(pumpkin) seed(s)*
seed(s)₃		pisakari, col. pisakaroo	pisagaroo, col. pisagariya			KM 225: *pisakariya, col. pisakaroo; SC 161
75. *sit₁*	'iwiit	'ibiit	'ibiid			SC 289; KM 157: *'ibiit
sit₂				'amim-	-	SC 388

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English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
76. *skin₁*	(fala *hide*, *prepared skin*)	fala	fala	(fulo *hide*)		KM 104: *fala; SC 150
skin₂	kaahari (*dried*) *skin*	ka(h)ari / kaahari	(kaariya *sheep's hide*)	-		KM 169: *kahariya, from adj. *kahar *dry*
skin₃					tseno	SC 386
77. *sleep₁* v.	gu'	gu'	gu'			KM 120: *gu'; SC 239: Da giiṭ- id.; ECu: Si goṭ- id.
sleep₂ v.						
sleep₃ v.				ra'-		SC 388
sleep₄ v.				tsum-		SC 388
78. *small₁*	niinaw	niina			-nanana	KM 217: *niinaw; SC 292: Ma'a m'inyí; ECu: El ninina, Ds niní; Ya -ni'in
small₂						Ir naasú *a pinch of*
small₃		cokoʕ				SC 386: coko
small₄				'ara		SC 386
79. *smoke₁* n.	(tseeʕamá *sunshine*)					KM 287: *tsaa'aas *shine on, give light*; cf. Ir tseeʕamá *sunshine* < *tseeʕamá (KM 295)
smoke₂ n.	quu'i	quu'u				KM 235: *quu' *emit smoke*; SC 254; ECu n. *qayʕ- *smoke* (EC_HL 79)
smoke₃ n.			'eḥa			SC 387
smoke₄ n.				to'usayok		SC 387
smoke₅ n.					selemuko	SC 387

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
80. stand₁	siḥiit				-	KM 249: *siḥ-it-, cf. Ir v. siiḥ- *erect, make stand*; ECu: Di soh-aḍ- *stand*
stand₂		qarit	qadid			KM 227: *qad-it, from *qad *be erect*; SC 388
stand₃				hut-		SC 388
81. star₁	tsatseeʕi	titsaʕi	ticaʕu		ʔsasa'amo	KM 300: *tsitsaʕiya, pl. *tsitsaʕu SC 226-27: cf. Al tsa'as- *give light to* (better *tseeʕamá *sunshine*; KM 295), Qw sa'- *burn*
star₂				'alalaya		SC 368, 387
82. stone₁	tlaaʕa	tlaaʕa	tlaaʕa	ʔde'ok	tlayiko	KM 273: *tlaaʕa; SC 359; ECu: Som ḍuʕun ~ ḍuḥun *flintstone* (Re; see Me 333); ʔBeja ḍa' *horn*
stone₂						ʔCCu: Bilin dängʷəra, Khamir dəgʷəra *stone* (Re)
83. sun₁/₂			leetu			KM 191: *lala'itu SC 203: Bu letu; ECu: Mashile latta, Ko letta, Di lašš
sun₂	loo'aa / lele'aa / lala'aa	lala'aa	ʔleetu < sglt. *lala'itu			KM 191: *lala'oo; SC 203: Ir lala'a *God*, Al lele'a *sun*; ʔECu: Sa lelleʕ *day*, Af loʕo *daytime*

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
sun₃						cf. v. Ir tsiiʕ *highest temperature* < *tsiʕ *be scorched*, *get burnt* (KM 296)
sun₄				'ajet ('ajota *day*)	aso	SC 284: Ma'a i'azé id., ma'azé *day*
84. *swim₁*						SC 346: pref. *wa- & *daḥ-, cf. Al (redupl.) daraḥasu *fish*; SC 325: cf. ECu *zak- (EC_Z 140)
swim₂	tuumbiim	tumbucimᴹ	-	-	-	KM 273: *tuumbim (without Al)
85. *tail*	ḥaysoo	ḥaysoo	ḥaysoo	hesa	hayisowa	KM 151: sg. *ḥaysoo, pl. *ḥaysa'i/*ḥaysasu SC 379: Al, Bu ḥayiso
86. *that₁*	-	qó		-	-	Wh 59–60; Z 509
86. *that₄*			ka'a / ta'a hika'a m. / hata'a f.			Wh 59–60; K 89 SC 296, 289: Ma'a ka
87. *this₁*	-	m. wí f. tí	m. kí f. tí	-	-	Wh 59-60; SC 311, 296, 289: Da 'uukwa / 'iiṭa
this₂		hee / he	ha / hi hing m./ hang f.			KM 135: *hee; from *heedi *person*

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
88. *thou*	kúung m. kíing f.	kuu m. kii f.	'ugu m. 'igi f.	-ku *thy*	-ku *thy*	KM 180, 175: m. *kuu, f. *kii; SC 243, 245–46: Da ku/ki; ECu obj. *ku /*ki; cf. ECu: Ds kúúni, Ar ké, El kesé; Ya 'aáçuk *thou* < *'a-ki-ku; CCu acc. *kʷət; Beja bar-uuk *thou*
89. *tongue₁*	tsifraangw	tsufiraa	cufaraang	šeferank		KM 302: *tsufiraangw pl. tsufireeri; SC 196
tongue₂					ondalimo	SC 274: Ma'a lu'ánda Da ʕééna
90. *tooth₁*	siḥnó	siḥinoo				KM 249: *siḥinoo; SC 180
tooth₂	(ʕaantlinó *molar tooth*)	(ʕaantlimoo *molar tooth*)	ʕaatlimo			KM 58: *ʕaantlimo / *ʕaantlinoo
tooth₃				liga	ihlikuko	SC 292: Ma'a i'ike
91. *tree₁*	xa'anó	xa'imoo	xa'imo			KM 320: *xa'inoo, pl. *xa'i; SC 256: Ma'a mhatú / mxatú
tree₂				kašiŋ		SC 386
tree₃					tsa'unko	SC 386
92. *two₁*	tsár	njad	cada		(sa'aleko *twins*)	KM 288: *tsada; SC 229, 386
two₂				hlam		SC 208: ?Da líima
two₃					mbaéa	Claus 1910; cf. AlBu *bi'itee *other* (KM 74) SC 136: Ma'a bí *only*

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
93. *warm₁*						
warm₂	-	v. haam	v. haam	-	-	KM 130-31: *haam *be hot*, *hamée *heat*; SC 299
94. *water*	ma'ay	ma'ay	ma'ay	ma'a	ma'aya	KM 197: *ma'ay; SC 156: Ma'a ma'í; Da mà'a
95. *we₁*	'atén					KM 62: *'atén, perhaps from *'aten-na? *ye *with us* cf. Da 'àṯṯa (SC 282); ECu *ʔatin- *ye* (EC 11)
we₂		haandaa'	daandiray	-	-(V)ne *our*	KM 132: *haanta/i perhaps related to Ma'a níne *we*, kanu *our*; Da n(y)ányi, bound -ni (SC 184, 284); ECu: Bj naanu; Ya niíni' *we*
96. *what₁*	-	melee	mala	-	?homi	KM 200: *mala; SC 158: Al mi; Qw homi; Ma'a mina; Da máka (SC 155); ECu: Or W, Bor maal, Macha, Harar maali < ECu *maʔ- *what* (EC_B 146)
what₂						

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
97. *white₁*	ʕawaak	ʕabaakw	ʕabaakw	'abaka	-abakwe	KM 47: *ʕabaakw, derived from *ʕab *new*?; SC 376
white₂					tsa'ati	SC 388
98. *who₁*	-			-	-	SC 153: Ir he *person*, cf. amaga *how many* : ga *thing*; Ma'a -hamá *which*
who₂/₁		miya	miyaa			KM 208: *miyaa; SC 158
99. *woman₁*	('aamaa *old woman*)	('aama *aunt*)	('ama *mother*)	('ama'eto *older girl*, 'amama *grandmother*)	(ama *mother*)	KM 54: *'aama *mother*; SC 282; cf. ECu: Ds mìnnì *woman*; Bj ammána *women*, Si ama *woman* (EC_B 140, 25)
women₂	tiyay	tikay	tigay			KM 270: *tigay; SC 283: ?Da 'at̪ika *buffalo cow*; Beja tak, pl. tika *man*, takat *woman* (Re)
woman₃	haree	haree	hadee			KM 129: *hadee; SC 300: Ma'a hará *calf*
woman₄				mayito		SC 386
woman₅					wadzo	SC 386
100. *yellow₁*						?HECu 339: Kb šiirit *black and white*; ?CCu *sär- *red*
yellow₂	-	-		-	(tsa'ati *white*)	SC 355

English	Gorowa	Alagwa	Burunge	Asa	Qwadza	etymology
d. source	[KM]	[KM]	[KM]	[SC]	[SC]	
yellow₃		qaantsar	qaancar			KM 230: *qaantsar *green*, *blue*, *yellow*
yellow₄			ya'ada'adi			SC 388
yellow₅				(-dili'i *red*)	deles-	SC 346: Ir delo *day*
101. grass	gitsoo, sgt. gitsiimi					KM 117: *gitsoo, sgt. *gitsiimi
102. snake		deesu	deesu			KM 90: *daysu; SC 225; cf. NS: Koman: Koma dàašó', Twampa tašá' id. (Bd)
103. thin₁						Beja nehaw *become thin, weak* (Eh 108)
104. three₁	tám	tam	tami		tami	KM 267: *tami; SC 290: Da 'íttaanṭóóni *third day after tomorrow*
105. wet	naaʕ	ʕan				KM 213: *naʕ SC 352; ECu: ?Arb ňoor *mud*
106. ye₁	kuungá'					KM 183: *kuungaa'i; SC 247: Ma'a kúné id. Da kuná *your*; EC_B 173: *kun- / *kin- *your*; Beja baraakna *ye* (Re)
ye₂	(-húng *your*)	huunguraa'	'uunkuray			Ki 290, KM 144–45: *huunku(-ra)

Abbreviations

AA Afroasiatic, Af Afar (Parker & Hayward 1985), Al Alagwa, Arb Arbore (Hayward 1984), Aw Awngi (Hetzron 1978), Ba Bayso (Hayward 1979a / Haberland & Lamberti 1988), Bd Bender 1971, Bj Burji (Sasse 1982), Bo Boni (Heine 1982), Bor Borana (Stroomer 1995), Bu Burunge, C Central, col. collective, Cu Cushitic, d. dominant, D Dempwolff, Da Dahalo (Ehret 1980 / Tosco 1991), Di Dirayta (Black 1974), Ds Dasanech (Sasse 1974), Du Dullay (Amborn, Minker & Sasse 1980), dur. durative, E East, EC East Cushitic (Sasse 1979), EC_B East Cushitic (Sasse 1982), EC_{HL} (Haberland & Lamberti 1988), Eh Ehret 1987, El Elmolo (Heine 1980), F Fleming 1971, Ge Gedeo (Hudson 1989), Gg Gollango (AMS), Go Gorowa, Hd Hadiyya (Hudson 1989), HECu Highland East Cushitic (Hudson 1989), Hy Hayward, Ir Iraqw, Ji Jiddu (Heine 1978 / Banti & Ibraw 1996), K Kiessling (1994), Kb Kambatta (Hudson 1989), Ki Kiessling (2002), KM Kiessling & Mous (2003), Ko Konso (Black), LEC Lowland East Cushitic (Black 1974), lw. loanword, M Mous (1990), Me Meihof (1906), miss. missing, MK Mous & Kiessling, Mo Mous (1992), N North, Nil Nilotic, Om Omotic, Or Oromo (see Bor), OrW Oromo of Wellega (Gragg 1982), Qw Qwadza, Rd Rendille (Pillinger & Galboran 1999), Re Reinisch (1890, 1895, 1902), Ro Roper (1928), S South, Sa Saho (Welmers 1952), Sand Sandawe (Kagaya 1993), SC South Cushitic data of Ehret (1980), SC_F South Cushitic data of Fleming (1969), sgt. singulative, Si Sidamo (Hudson 1989), Sm Sam (Heine 1978), Som Somali, Sw Swahili, TLM Teso-Lotuka-Masai (Vossen 1982), Ts Tsamay (Amborn, Minker & Sasse 1980; Hayward 1989), Wh Whiteley (1958), Ya Yaaku (Heine 1976), Z Zaborski (1984–86).

Statistics of loanwords and missing items

Iraqw: lw.:## 14 cloud, 29 fish, 54 meat; miss.: ## 0. Σ 3.

Gorowa: lw.: ## 11 breast, 29 fish, 54 meat; miss.: ## 70 round, 74 seed, 86 that, 8 this, 93 warm, 96 what, 98 who, 100 yellow. Σ 11.

Alagwa: lw.: ## 11 breast, 54 meat. Σ 2.

Burunge: lw.: ## 11 breast, 29 fish, 54 meat; miss.: # 84 swim. Σ 4.

Asa: lw.: 11 breast, 18 dog, 29 fish; miss.: 3 bark, 4 belly, 24 egg, 43/2 I, 63 not, 70 round, 74 seed, 76 skin, 84 swim, 86 that, 87 this, 93 warm, 95 we, 96 what, 98 who, 100 yellow. Σ 17,5.

Qwadza: lw.: ## 14 cloud, 18 dog; miss.: 1 all, 2 ashes, 27 feather, 30 fly n., 32 full, 43 I, 47 leaf, 63 not, 74 seed, 75 sit, 80 stand, 84 swim, 86 that, 87 this, 93 warm, 95/2 we, 98 who. Σ 18,5.

Statistics of cognates

Iraqw + Gorowa: 87/88 = 0.9886

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 88, 89, 90, 91, 92, 94, 95, 97.

Iraqw + Alagwa: 81/97 = 0.8350

1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 38, 29, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 57, 58, 59, 60, 61, 62, 63/2, 64, 65, 66, 67, 69, ?70, 72, 73, 74, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 87, 88, 89, 90, 91, 92, 93, 94, 95/2, 96, 97, 98/2.

Iraqw + Burunge: 75.5/95 = 0.7947 // 80.5/95 = 0.8474

3, 4, 5, 6, 7, 8, 9, 10, 12, *13, 15, 16, 17, *18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, *56, 57, 58, 59, 60, 61, 62, 63/2, 65, 66, 67, 70, 71, 72, 73, 75, 76, 77, *79, 81, 82, 83, 85, 87, 88, 89, *90, 91, 92, 93, 94, 95/2, 96, 97, 98/2.

Iraqw + Asa: 37/80.5 = 0.4596

5, 6, 10, 12, 15, 16, 17, 19/2, ?21, 23, 25, 31, 32, 37, 39, 40, 41, 42, 43/2, 44, 45, 48, ?49, 51, 52, 55, 57, 58, 59, 60, 62, 65, 71, 73, ?82, 85, 88/2, 94, 95/2, 96/2, 97.

Iraqw + Qwadza: 32.5/79.5 = 0.4088

5, ?7, 10, 15, 16, 17, 19/2, 20, ?21, 23, ?24, 25, 31, 36, 39, 41, 42, 44, 45, 48, 55, 57, 59, ?62, 65, 66, 69, 71, 72, ?81, 82, 85, 88/2, 94, 95/2, 96/2, 97.

Gorowa + Alagwa: 77/89 = 0.8652

1, 3, 4, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 57, 58, 59, 60, 61, 62, 63/2, 64, 65, 66, 67, 69, 72, 73, 75, 76, 77, 78, 79, 81, 82, 83, 84, 85, 88, 89, 90, 91, 92, 94, 95/2, 97, 99.

Gorowa + Burunge: 70/88 = 0.7954 // 75/88 = 0.8522

3, 4, 6, 7, 8, 9, 10, 12, *13, 14, 15, 16, 17, *18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, *56, 57, 58, 59, 60, 61, 62, 63/2, 65, 66, 67, 71, 72, 73, 75, 77, *79, 81, 82, 83, 85, 88, 89, *90, 91, 92, 94, 95/2, 97, 99.

Gorowa + Asa: 34/81.5 = 0.4172

6, 10, 12, 15, 17, ?19, ?21, 23, 25, 31, 32, 37, 39, 40, 41, 42, 43/2, 44, 45, 48, 49/2, 52, 55, 57, 58, 59, 60, 62, 65, 71, 73, ?82, 85, 88/2, 89, 94, 97.

Gorowa + Qwadza: 30/77.5 = 0.3871

?7, 10, 17, ?21, 23, ?24, 25, 31, 36, 37, 39, 41, 42, 44, 45, 48, 55, 57, 59, ?62, 65, 66, 69, 71, 72, 78, ?81, 82, 85, 88/2, 94, 95/2, 96/2, 97.

Alagwa + Burunge: 85.5/96 = 0.8906 // 87.5/96 = 0.9114

2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, ?70, 72, 73, 74, 75, 76, 77, *79, 80, 81, 82, 83, 85, 87, 88, 89, *90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Alagwa + Asa: 34.5/81.5 = 0.4233

2, 5, 6, 10, 12, 15, 17, ?21, 23, 25, 31, 32, 39, 40, 41, 42, 43/2, 44, 45, 48, ?49, 51, 52, 55, 57, 58, 59, 60, 62, 65, 73, ?82, 85, 88/2, 89, 94, 97.

Alagwa + Qwadza: 30/79.5 = 0.3774

5, ?7, 1017, 20, ?21, 23, ?24, 25, 31, 36, 39, 41, 42, 44, 45, 48, 55, 57, 59, ?62, 65, 66, 69, 72, 78, ?81, 82, 85, 88/2, 94, 95/2, 96/2, 97.

Burunge + Asa: 35.5/81.5 = 0.4356

2, 5, 6, 10, 12, 15, 17, ?21, 23, 25, 31, 32, 39, 40, 41, 42, 43/2, 44, 45, 48, ?49, 51, 52, 55, 57, 58, 59, 60, 62, 65, 71, 73, ?82, 85, 88/2, 89, 94, 97.

Burunge + Qwadza: 28/78.5 = 0.3569

5, ?7, 10, 17, ?19, 20, ?21, 23, ?24, 25, 31, 36, 39, 41, 42, 45, 48, 55, 56, 57, ?62, 65, 66, 71, 72, ?81, 82, 85, 88/2, 94, 96/2, 97.

Asa + Qwadza: 30/74 = 0.4054

5, 8, 9, 10, 16, 17, 20, ?21, 23, 25, 31, 35, 37, 39, 41, 42, 44, 45, 48, 55, 57, 59, ?62, 65, 71, ?82, 83, 95, 88/2, 90, 94, 97.

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