Proto East Cushitic Work in progress..

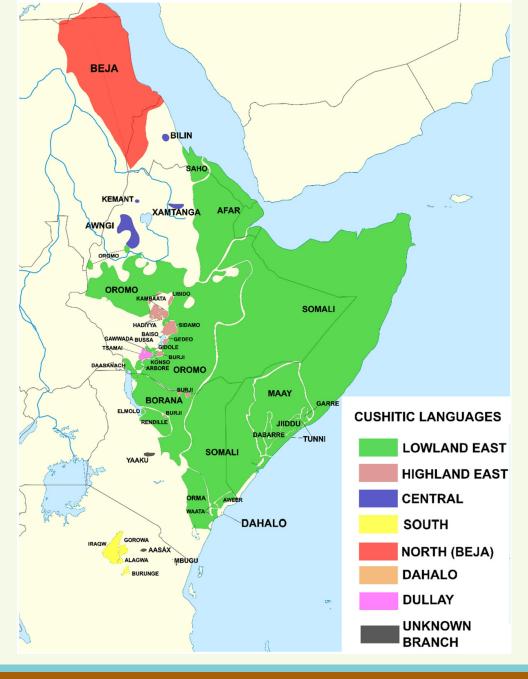
AHMED SOSAL



Outlines

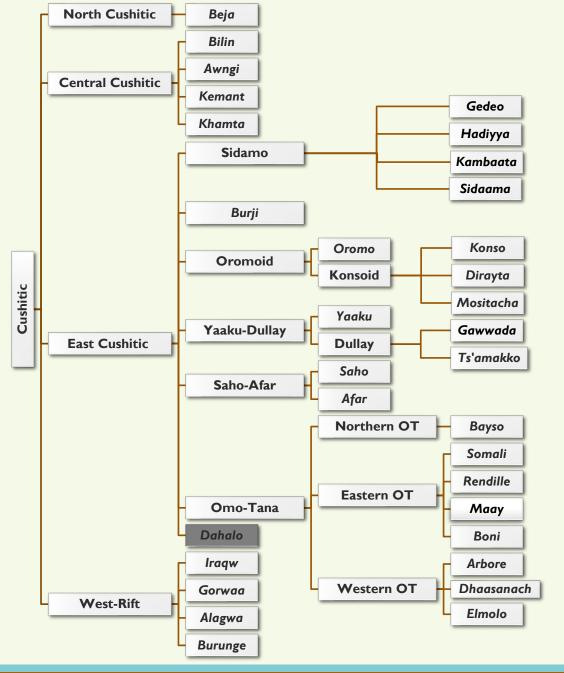
- EC subgroups
- East Cushitic Lexical Database
- EC glottalized alveolars (d's)







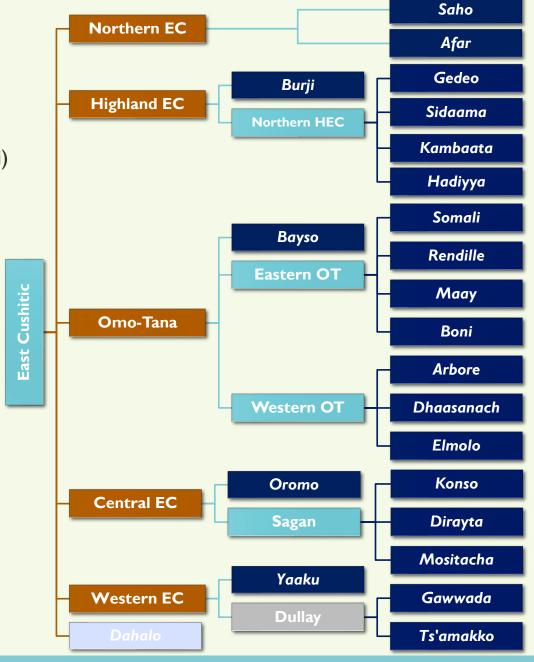
"...a subclassification of EC... treats [Saho-Afar, Omo-Tana, Oromoid, Sidamo group, Burji, Dullay (-Yaaku)] groups as more or less equivalent, i.e. a larger group comprising Saho-Afar, Omo-Tana, and Oromoid in the sense of Bender's LEC is not recognized here." (Sasse 1979:3-4)



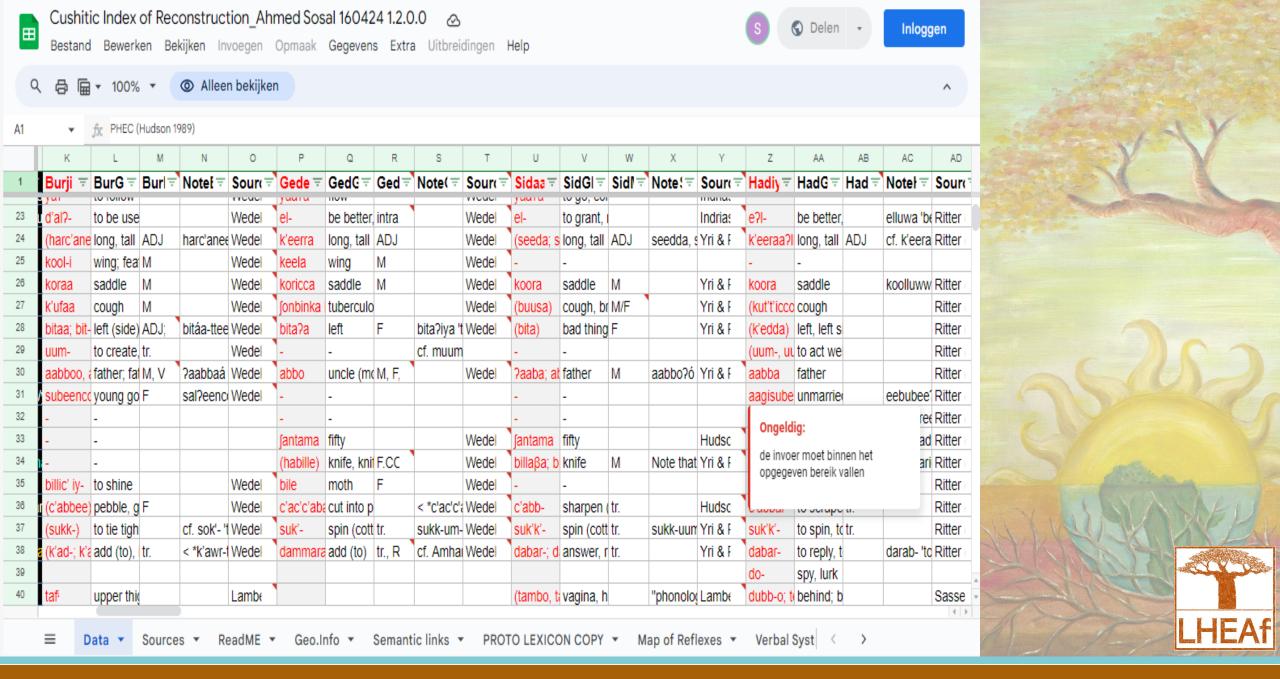


New terms

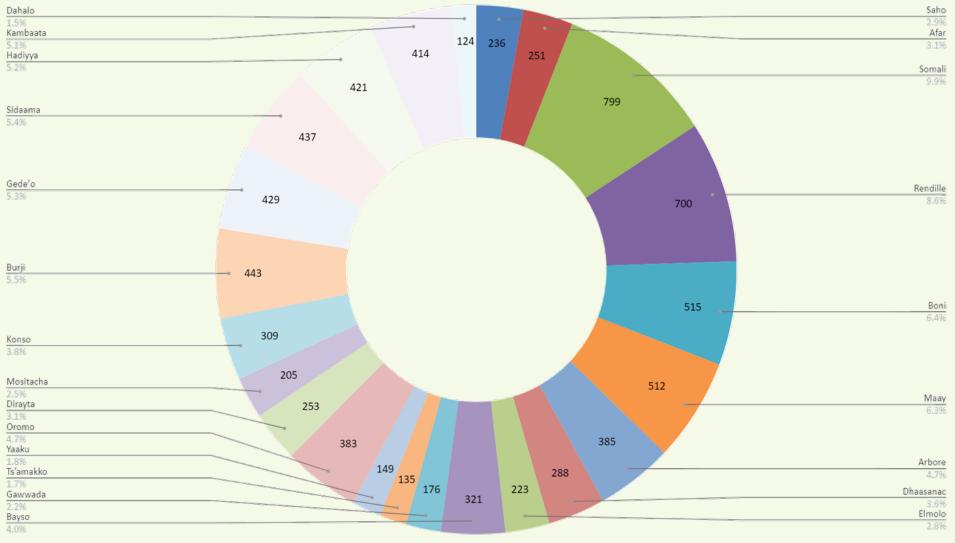
- Northern EC = Saho-Afar
- Northern Highland EC = HEC (excl. Burji)
- Western EC = Yaaku-Dullay
- Central EC = Oromoid
- Sagan = Konsoid

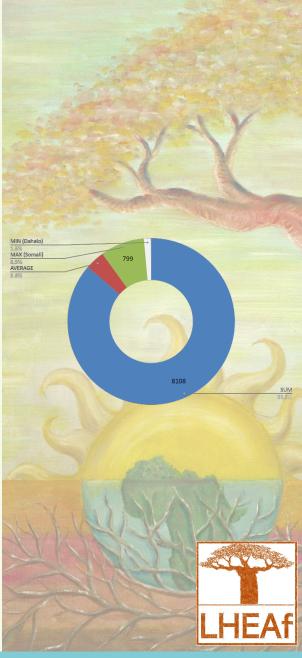




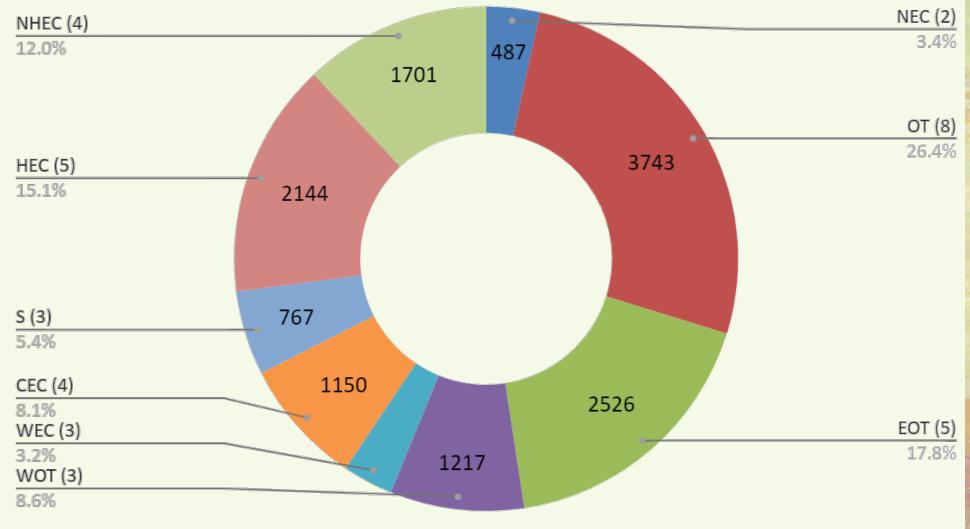


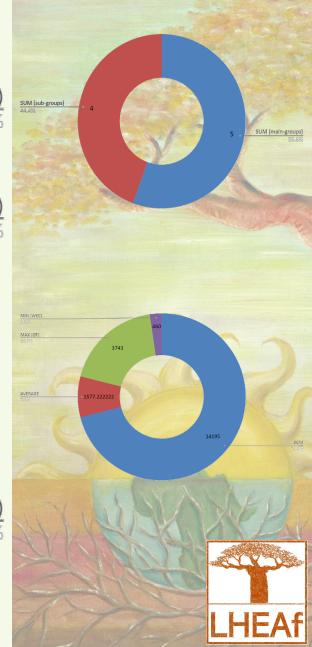
Languages data



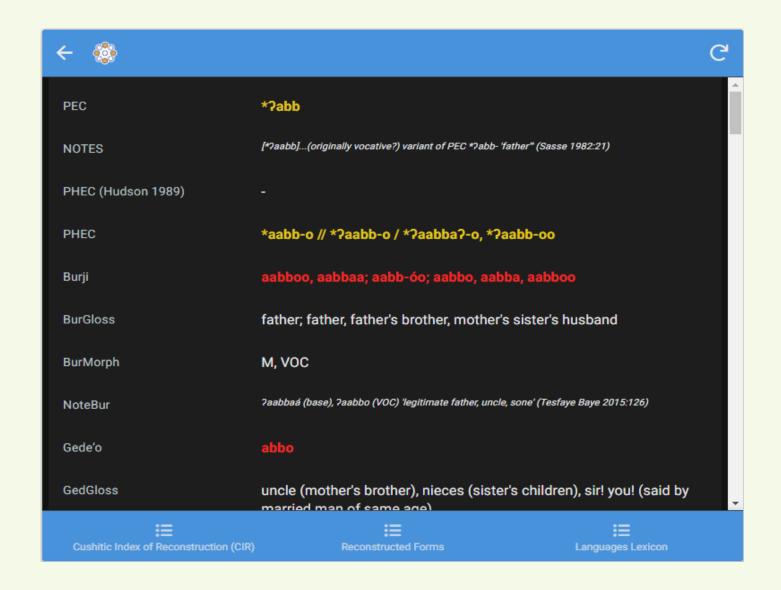


Groups data

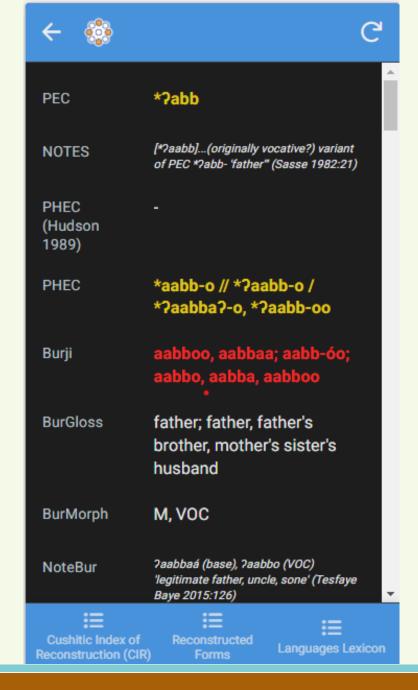




PC browser app









Glottalized alveolars

```
PEC *d' → Saho-Afar, Somali, Rendille q = Boni, Dasanaach, Arbore and Elmolo d'
```

PEC *d'₁ → Dirayta d' = Konso μ = Oromo c'

→ Somali j = rest of EC d' (tentatively)

PEC *d'₂ → Dirayta c' = Konso j = Oromo d' (Oromo dialectal var. instead)

PEC *d'₃ → Dirayta d' = Konso j = Oromo t' (scanty evidence, so Oromo t' (irregular) (← d'₁)

"The reconstruction of PEC glottalized (or otherwise affected) stops in the denti-alveolar region seems unproblematic as long as the principal "Lowland East Cushitic" languages are examined, but becomes more and more complicated once other languages are taken into consideration."

(Sasse 1979: 25, 27-29)





Evidence from Highland East-Cushitic: PHEC *t'

PHEC	*t'uut'-	'to suck'	*wit'- / *wat'-	'to sow'
Burji	*t'uunt'-	'to absorb'	wat'ar-, wot'ar-	'scatter'
Gedeo	*t'uut'-	'to suck'	(wii <mark>s</mark> a)	'to sow'
Sidaama	*t'uut'-	"	wit'-	"
Hadiyya	*t'uut'-	"	wit'-	"
Kambaata	*t'uut'-	"	wit'-	"

```
Proto-East-Cushitic *t'ab- 'to diminish'?
      Proto-Northern EC -
        – Saho –
        - Afar -
      Proto-Highland EC *t'a?- 'be extinguish', *t'e?- 'to diminish'
         - Burji t'ay- 'extinguish', t'ey- 'dry out'
         - Proto-Northern HEC *t'a?- 'be extinguish', *t'e?- 'to diminish'
            - Gedeo t'e?y- 'be incomplete'

    Sidaama t'e?- 'be depleted, be insufficient'

            - Hadiyya t'a?a 'depleted', t'a?- 'be depleted/diminish'
            Kambaata t'a?u'extinguish', t'e?- 'be depleted'
      Proto-Omo-Tana -
         Bayso -
         Proto-Eastern OT -
           — Somali -
             - Rendille -
             - Boni -
            – Maay -
          Proto-Western OT -
            - Arbore -
            Dhaasanac -
             Elmolo -
      Proto-Central EC *d'ab- 'be lacking'
         - Oromo d'aa-m- 'extinguish', d'aba 'be unable, lacking'

    Proto-Sagan *dap 'to not find, lose'

           - Dirayta dap- 'not find'
           – Mositacha <del>ɗab</del>- 'lose'
           - Konso dap- 'be unable to find, miss', dox- 'be hungry/extinguish'
      Proto-Western EC -
        -Yaaku -
        - Dullay -
           Gawwada do?- 'to dry up and crack', dap- 'to lose'
          – Ts'amakko -
     Dahalo 27 'to dry out'
```

Evidence from Highland East-Cushitic: PHEC *t'

```
Proto-East-Cushitic *t'ab-, *d'ab- 'to diminish'?
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           - Hadiyya t'a?a 'depleted', t'a?- 'be depleted/diminish'

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      Proto-Omo-Tana -
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            Arbore -
            · Dhaasanac -
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      Proto-Western EC -
        Yaaku -
        - Dullay -
          - Gawwada do?- 'to dry up and crack', dap- 'to lose'
          – Ts'amakko -
     Dahalo 27 'to dry out'
```

Evidence from Highland East-Cushitic

PHEC *t' → Burji t' = Gedeo t' = Sidaama t' = Hadiyya t' = Kambaata t' (= Sasse's *d' and *d'₃)

- Labial *b loss via *w in HEC, Oromo d'aa-m- 'extinguish'?
- Gawwada dap-ad- (MID) 'to get lost', taaς' 'to dry up'
- Pre-PHEC *t'ab-?- (reflexive) ?
- Regular Proto-Sagan devoicing of the stops: *b → *p
- Dahalo /// is a dental click

- + Regular correspondences and retention beyond HEC
- Limited evidence particularly in non-initial position

see Wolayta t'ay- 'to get lost'

Evidence from Highland East-Cushitic: PHEC *c' /*tʃ'/

PHEC	*c'il	'to defecate'	*c'uub-	'dip in, immerse'	*c'iid'-	'bird'
Burji	c'il-	"	c'uub-	>>	c'iid'aa	,,
Gedeo	c'il-	,,	c'uup'-	,,	c'i?a	,,
Sidaama	c'il-	"	c'uu?i	,,	c'ii?-	,,
Hadiyya	c'ir-	"	c'ufc'ufaa?-	"	c'ii?-cco	**
Kambaata	c'in-	"	c'uf (c'aba) ai	"	c'iiccu-	,,

- Burji c' : Ged c' : Sid c' : Kam c' : Had c'
- Sasse (1979: 30): "All HEC languages have a phoneme c' which is mainly confined to loanwords. The two or three instances in which it appears to be autochthonous do not seem to have cognates outside HEC."
- *c'ob-?- 'to drip, to leak'
- *d'₁aff- 'meadow' (maybe a loanword) (Sasse 1979: 27, 61)

Evidence from Highland East-Cushitic: PHEC *ts'

PHEC	*ts'uf	'to close'	*ts'alla	'only, alone'
Burji	c'ukk-	"	c'alla	"
Gedeo	c'uf-	"	c'alla	,,
Sidaama	c'uf-	"	c'alla	,,
Hadiyya	t'uf-	"	t'alla	"
Kambaata	t'uf-	"	t'alala	"

- Burji, Ged, Sid c'alla ← Oromo c'alla 'alone' ? (Sasse 1982, p. 46).
- See Wolaytta t'alaala 'alone'

```
Proto-East-Cushitic *ts'uur- 'ant sp.'
      Proto-Northern EC *d'uur- 'ant'?
       — Saho duure 'ant'
        – Afar <mark>ɗuuné</mark> 'ants'
      Proto-Highland EC *ts'uuts'- 'black ant'
          · Burji c'uuc'c'ee 'black ant'
         Proto-Northern HEC *ts'uuts'- 'black ant'
            - Gedeo t'ut'e 'small black ants'
            - Sidaama t'ut'e, c'uunc'a 'big black ants'
            - Hadiyya c'uun-co 'big black ants'
             Kambaata t'ut'i-ta '
      Proto-Omo-Tana -
          Bayso tunce 'red ant'
          Proto-Eastern OT *c'uur- 'ant sp.'

    Somali duur Saso 'ant sp.', duudi 'a kind of louse'

             - Rendille dúude 'black ant(s)'
              Boni d'óói (Kilii), j'úúrə (Baddey), c'úúrə (Bireeri) 'ant sp. (small)'
             - Maay <mark>duuri</mark> 'ants'
          Proto-Western OT -
            Arbore -
            - Dhaasanac -
             Elmolo -
      Proto-Central EC -
         - Oromo (t'iint'-ana) 'maggot'
        – Proto-Sagan *<mark>d'uud'-eta</mark> 'ant sp.'
            - Dirayta duuddet 'small black ants'
           – Mositacha ɗuɗe-ta 'ant'
            - Konso -
      Proto-Western EC -

    Yaaku t'oro?tɛ 'driver or safari ant'

        - Dullay -
           - Gawwada -
           - Ts'amakko –
      Dahalo t'at'e 'small ant'
```

Evidence from Highland East-Cushitic: PHEC *ts'

```
Proto-East-Cushitic *ts'uur- 'ant sp.'
      Proto-Northern EC *d'uur- 'ant'?
        — Saho duure 'ant'
        – Afar <mark>ɗuuné</mark> 'ants'
      Proto-Highland EC *ts'uuts'- 'black ant'
          · Burji c'uuc'c'ee 'black ant'
         Proto-Northern HEC *ts'uuts'- 'black ant'
            - Gedeo t'ut'e 'small black ants'

    Sidaama t'ut'e, c'uunc'a 'big black ants'

            - Hadiyya <mark>c'uun-co</mark> 'big black ants'
             Kambaata t'ut'i-ta '
      Proto-Omo-Tana -
          Bayso tunce 'red ant'
          Proto-Eastern OT *c'uur- 'ant sp.'
            - Somali duur Saso 'ant sp.', duudi 'a kind of louse'
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             - Maay duuri 'ants'
          Proto-Western OT -
             Arbore -
            · Dhaasanac -
             Elmolo -
      Proto-Central EC -
         - Oromo (t'iint'-ana) 'maggot'
        – Proto-Sagan *<mark>d'uud'-eta</mark> 'ant sp.'
            - Dirayta <mark>ɗuuɗɗét</mark> 'small black ants'
           – Mositacha dude-ta 'ant'
            - Konso -
      Proto-Western EC -
        - Yaaku t'oro?tɛ 'driver or safari ant'
        - Dullay -
           - Gawwada -
           - Ts'amakko –
      Dahalo t'at'e 'small ant'
```

Evidence from Highland East-Cushitic

- PHEC *ts' → Burji c' = Gedeo c', t' = Sidaama c', t' = Hadiyya t' = Kambaata t' (= Sasse's *d', *d'₁, *d'₃)
- Sasse (1979: 30): "All HEC languages have a phoneme c' which is mainly confined to loanwords. The two or three instances in which it appears to be autochthonous do not seem to have cognates outside HEC."
- Lamberti (1986) reconstructs PEOT *d'y
- Jiddu Jiddu <mark>duudu?</mark> 'ant'
- Two separate roots Ged-Sid t'ut'e 'small black ants', c'uunc'a 'big black ants'?
- + Regular correspondences mainly in HEC
- Limited evidence particularly in non-initial position
- ref. PWR <mark>*ts'ilaʔu</mark> 'small black ants (sp.)' → Burunge c'ilaʔu.

```
Proto-East-Cushitic *d'if- 'to plant, build'
      Proto-Northern EC *d'i[- 'to build, plant'
        — Saho dif- 'establish, to found'

    Afar dis- 'plant, build'

      Proto-Highland EC -
         · Burji d'i[-'plant, build'
         - Proto-Northern HEC -
            - Gedeo -
            - Sidaama -
            - Hadiyya -
             Kambaata -
      Proto-Omo-Tana *d'is- 'to build'
          Bayso -
          Proto-Eastern OT *d'is- 'to build'
            - Somali dis- 'to build'
             - Rendille dis- 'to build'
              Boni d'is- 'to build'
             - Maay dis- 'to build'
          Proto-Western OT *d'is- 'to build'
            Arbore d'is- 'to build'
            - Dhaasanac d'is- 'to build'
             Elmolo d'is- 'to build'
      Proto-Central EC *d'if-, *d'ih- 'plant, build'
         - Oromo d'i[- 'stretch out skin'
         - Proto-Sagan *d'i[-, *d'ih- 'plant, build'
            - Dirayta dih 'plant, transplant, build'
            - Mositacha <mark>ɗih</mark> 'build'
            - Konso dif- 'plant'
      Proto-Western EC -
        - Yaaku -
        - Dullay *di[- 'to plant'
           - Gawwada dif- 'to plant, sow'

    Ts'amakko dij- 'to plant, sow'

      Dahalo -
```

Regular PEC *d'

```
Proto-East-Cushitic *d'if- 'to plant, build'
      Proto-Northern EC *d'if- 'to build, plant'
        — Saho dif- 'establish, to found'

    Afar dis- 'plant, build'

      Proto-Highland EC -
          · Burji d'i[-'plant, build'
         - Proto-Northern HEC -
            - Gedeo -
            - Sidaama -
            - Hadiyya -
             Kambaata -
      Proto-Omo-Tana *d'is- 'to build'
          Bayso -
          Proto-Eastern OT *d'is- 'to build'

 Somali dis- 'to build'

             - Rendille dis- 'to build'
              · Boni d'is- 'to build'
             - Maay dis- 'to build'
          Proto-Western OT *d'is- 'to build'
             Arbore d'is- 'to build'

    Dhaasanac d'is- 'to build'

             Elmolo d'is- 'to build'
      Proto-Central EC *d'if-, *d'ih- 'plant, build'
         Oromo d'i[- 'stretch out skin'
         - Proto-Sagan *d'i[-, *d'ih- 'plant, build'
            - Dirayta dih 'plant, transplant, build'
           – Mositacha <mark>ɗih</mark> 'build'
            – Konso <mark>di[- 'plant'</mark>
      Proto-Western EC -
        - Yaaku -
        - Dullay *di[- 'to plant'

    Gawwada dif- 'to plant, sow'

 Ts'amakko dif- 'to plant, sow'

      Dahalo -
```

Regular PEC *d'

- PEC *d'i[- 'plant, build' (Sasse 1982: 195; Sasse 1979:26)
- PEC *[→ POT *s
- Dirayta and Mositacha h might be from a fossilized suffix or independent root
- No attestation in NHEC

Evidence from Highland East-Cushitic: PHEC *ts'

PHEC	*d'iib-	'to push'	*d'aban-	'to slap'	*c'iid'-	'bird'
Burji	d'iib-	"	d'aban-s-	'bend'	c'iid'aa	,,
Gedeo	d'iibema	'be pushed'	d'abanaasa	"	c'i?a	"
Sidaama	t'iibi	'to push'	d'a?a assa	"	c'e?icco	"
Hadiyya	t'iib-	"	t'aban-s-	**	c'ii?-cco	**
Kambaat	t'iib-	'press'	t'aban-s-	"		"
a					c'iiccu-	

- Initial: Burji d' = Ged d' = Sid d' = Had t' = Kam t'
- Non-initial: Burji $\emptyset/? = \text{Ged } \emptyset/? = \text{Sid } \emptyset/? = \text{Had } \emptyset/? = \text{Kam } \emptyset/? \text{ (reflexive/middel)}$
- Non-initial: Burji d' = Ged r/d'/2r = Sid 2r = Had 2/9 = Kam 2/9 (after a vowel)
- Non-initial: Burji d' = Ged d' = Sid d' = Had ?/d' = Kam ?/d' (adjacent to sonorants)
- Non-initial: glottalization and gemination of stem final consonants (adjacent to obstruents)

```
Proto-East-Cushitic *d'arb-an- 'to slap'
      Proto-Northern EC -
        – Saho -
         - Afar -
      Proto-Highland EC *d'aban- 'to slap'
          Burji d'aban-s- 'bend', d'abanaa 'side'
         - Proto-Northern HEC **d'aban- 'to slap'
           - Gedeo d'abanaasa 'hit. beat'

    Sidaama d'a?a assa 'to slap (the face)'

            - Hadiyya t'abans- 'to slap', oob a'p'is- 'to slap', t'iffe?e (n) 'slap'
            · Kambaata t'aban-s- 'slap'
      Proto-Omo-Tana **d'ab-an- 'to slap'
          Bayso -
          Proto-Eastern OT *d'arb-an-, *d'arb-aħ 'to slap, strike'
            – Somali <mark>darbaaħ</mark> 'slap, strike'
             - Rendille dábaħ '(act of) stamping on (something)'
             · Boni d'arbah- 'to slap, to hit, to box ear'
             - Maay <mark>darbaan</mark> 'guided punch'
          Proto-Western OT *d'ab-n 'to slap'
            - Arbore dan- 'beat, punish', rébb 'slap'
            - Dhaasanac d'án 'to tear off, to pieces; to twist'
             Elmolo (dáu, dá-a) 'to slap'
      Proto-Central EC *d'aan- 'to beat'
         - Oromo d'aana 'beat on, punish'
         - Proto-Sagan -
            - Dirayta daan 'beat millet' (said to be Mashile, not Gidole)'
           – Mositacha -
            - Konso -
      Proto-Western EC -
        -Yaaku -
        - Dullay -
           - Gawwada -
           -Ts'amakko -
      Dahalo -
```

```
Evidence from Highland East-Cushitic: PHEC *d'
```

Word initial: PHEC *d' → Burji d' = Gedeo d' = Sidaama d', t' = Hadiyya t' = Kambaata t' (= Sasse's *d', *d'₁, *d'₃)

- Sidaama d' ~ t' : t'aam- ~ d'aam- 'to give a message to' (← *d'aam-)

 d'agge ~ t'agge 'story, miracle' (← *d'agn-)
- Arabore -dan 'schlagen' (Klein-Arendt 2004: 92)

```
Proto-East-Cushitic *d'ag-, *d'eg- 'to hear'
      Proto-Northern EC *-dag- 'to know'?
       — Saho -edeg- 'know, recognize'

    Afar dag 'auricular region'

      Proto-Highland EC *d'ak-?- 'to listen, spy'
         · Burji d'aggeysad 'to listen to, to pay attention'
        Proto-Northern HEC *c'ak'as- 'to listen, spy'
            - Gedeo c'ak'as- 'listen'
           — Sidaama -
            - Hadiyya c'ak'as- 'to check, to wait for s.b. eagerly'
            · Kambaata c'ak'as- 'listen to, spy'
      Proto-Omo-Tana *d'ag-ay 'to listen'
          Bayso -
          Proto-Eastern OT *d'ag-ay- 'to listen'
            - Somali degeyso 'hear, listen to'
             - Rendille <mark>daaga '</mark>hear'
             · Boni (dinésio) 'listen'
             - Maay deey- 'hear', duyinsið- 'listen'
          Proto-Western OT *d'eg-ay 'to hear'
            Arbore d'eg(a)y-'hear', tʃ'ak'as- 'listen'
            - Dhaasanac -
            Elmolo d'ekait, d'ey 'to hear'
      Proto-Central EC *d'ag-ay- 'to hear'
         - Oromo d'agaya '
        Proto-Sagan **d'ak-ay 'to hear'
           – Dirayta <mark>ɗakay- 'hear'</mark>
           - Mositacha ɗakay 'listen', ɗak'a 'hear', he-ɗak'a?-e 'hear'
           – Konso <mark>ɗak-ay</mark>- 'hear'
      Proto-Western EC -
        - Yaaku dek- 'hear'
        - Dullay -
           - Gawwada -
          – Ts'amakko -
      Dahalo -
```

Irregular PEC *d'

- PEC *d'eg- / *d'og- 'hear' (← *-d'eg- / *-d'og-) (Sasse 1979: 17)
- Irregular PNHEC *c'ak'as- 'to listen, spy' and Arbore tʃ'ak'as- (loanword ?)
- Base 'hear', Causative 'listen'?

```
Proto-East-Cushitic *d'al-, d'el- 'give birth, lay eggs'
       Proto-Northern EC *d'al- 'to give birth'

    Saho dal 'procreate, give birth'

         - Afar dale 'to bear, to give birth to'
       Proto-Highland EC *al 'give birth, beget (of human)'
          · Burji all- 'to bear, give birth, beget'
         Proto-Northern HEC *il "give birth, beget (of human)"
             - Gedeo il- 'give birth, beget (of human)'

    Sidaama il- 'give birth, beget (of human)'

             - Hadiyya (<mark>k'ar-</mark>) 'give birth, beget'
             ·Kambaata il- 'give birth, beget (of human)'
       Proto-Omo-Tana *d'al- 'give birth'
          Bayso -
           Proto-Eastern OT *d'al- 'give birth'

    Somali dal 'beget, bear, father (a child), give birth'

    Rendille dela 'give birth to, bear offspring (of humans or animals)'

              Boni d'el, el- (Kilii), d'el- (rest of Boni)
              - Maay <mark>dal</mark> 'bear'
           Proto-Western OT *d'al- 'give birth'
             -Arbore d'al- 'give birth, lay eggs'

    Dhaasanac d'ál- 'to generate'

              Elmolo d'âl- 'to bear children'
       Proto-Central EC *d'al- 'give birth'
          - Oromo d'ala 'give birth, beget'
          - Proto-Sagan *d'al- 'give birth'
            – Dirayta <mark>ɗal</mark> 'to give birth'

    Mositacha daliy 'give birth'

    Konso dal-, del 'beget, bear offspring (especially animals)'

      Proto-Western EC *d'al- 'give birth'
         -Yaaku del- 'to bear children'
        - Dullay *<mark>d'al-</mark> 'give birth'

    Gawwada dal- 'to beget, generate, give birth'

           –Ts'amakko <mark>ɗal</mark>- 'give birth'
      Dahalo -
```

Irregular PEC *d'

- *d'al- 'beget, give birth' (Sasse 1979: 21)
- Irregular *d' loss in NHEC
- see PHEC *k'al- 'give birth, beget (of animals)'

Conclusions

- The majority of the glottalized (alveolar) consonants show irregular sound correspondences.
- Evidence from HEC and the rest of EC does not support a reconstruction of glottalized consonants based on regular sound correspondences.
- Contact with Cushitic and non-Cushitic languages might have played a role in distorting the evidence (future research, see Crass 2002)
- An alternative tentative hypothesis might be to consider all the glottalized (alveolar) consonants secondary? Such a hypothesis could be supported by synchronic morphological/morphophonemic evidence.



References

Available on request.



*galat-a!