Somali vowel qualities and vowel harmony

Somali is often mentioned in typological literature on vowel harmony (e.g., Kaisse 2016, Krämer 2003), as Somali vowel harmony is reported to apply regressively over unusually long stretches, even whole clauses (Andrzejewski 1955, Saeed 1999). Its harmonic vowel sets, i, u, e, ø, æ (+ATR, culus), and ɪ, ɛ, u, ɔ, ɑ (-ATR, neutral), are also interesting, as fronting of back vowels is unusual in ATR-harmony systems. (The terms culus/neutral are based on the traditional Somali terms that characterize the distinction.) The Somali data cited is still mostly drawn from Armstrong (1934), Andrzejewski (1955) and Saeed (1999). Only a few new experimental studies have been conducted (Edmondson et al. 2003, Mohamoud 2013, Kimper et al. 2017), generally reinvestigating data similar to previous studies.

This study analyses a body of new data recorded with three speakers. A number of new minimal pairs have been established, based on words and forms in common use. We have investigated the phonetic values of the harmonizing vowels and the domain of vowel harmony.

Measurements of vowels in root morphemes have confirmed that fronting is not the most prominent difference between the two sets of vowels. Instead, there is both fronting and raising, with fronting being more prominent in back vowels and raising in front vowels. The culus high front vowel is even somewhat retracted, so that culus vowels are all more centralised, as shown in Figure 1 below.

The new data confirms that root morphemes agree for culus-ness and that culus roots trigger regressive harmony within the phonological word: waa baal [wa:bɑ:] ‘it’s a feather’ vs. waa waax [wæ:wæ:h] ‘it’s a quarter’; and also progressive harmony: dadkaa [datkɑ:] ‘those people’ vs. geedkaa [ge:tkæ:] ‘that tree’. Also a few suffixes are culus and trigger harmony in a preceding root: sheeg [ʃe:k] ‘tell’ vs. sheegid [ʃe:git] ‘telling’. Some variation between speakers can be observed, and the effects of the harmony are somewhat gradient, so that harmony is weaker farther away from the triggering morpheme.

We have not been able to reproduce the long distance harmony effects over whole clauses that are often cited in the literature. Only occasionally are whole clauses culus, but then multiple culus sources are present in the clause (culus roots underlined):

Saaxiibkey ayaa shaley baabuur cusub iibsadey
friend.my FOC yesterday car new bought
‘My friend bought a new car yesterday’

The focus particle ayaa is systematically culus, whereas baabuur cusub ‘a new car’ shows gradient harmony.

To sum up, the most important findings presented in this talk are:

1) The series of culus vowels are fronted and/or raised as compared to the neutral series. The back vowels are primarily fronted, whereas the front vowels are primarily raised.

2) The long distance vowel harmony processes over whole clauses initially reported by Andrzejewski (1955) have not been successfully reproduced. Instead the primary domain of harmony is the phonological word.
Figure 1. Culus versus neutral Somali long vowels produced by a speaker from Kismaayo.

References


Armstrong, L.E. 1934. The phonetic structure of Somali.


