

The Consequences of Microvariation in Eastern Nilotic

Eric Baković, UCSD

There is some compelling evidence that the process of [±ATR] vowel harmony in one Eastern Nilotic language, Maasai (Tucker & Mpaayei 1955, Archangeli & Pulleyblank 1994), is restricted in part by a principle that serves to maintain identity between [A] and [[A] B], where A is a (possibly complex) morphological stem and B is an suffix. Stem vowels in Maasai alternate to agree with certain (so-called “dominant”) [+ATR] suffix vowels, but this regular alternation is blocked in a set of well-defined situations that suggests the operation of a usually subverted but extant principle of stem identity. Another Eastern Nilotic language, Turkana (Dimmendaal 1983, Noske 1990 et seq.), differs minimally from Maasai in that some of its dominant affix vowels are [−ATR] as well as [+ATR]. This deceptively small lexical difference produces no less than three additional sets of situations in which stem vowel alternation is blocked, providing more conclusive evidence for an operative principle of stem identity.

There are nine vowels in both Maasai and Turkana (ignoring length and tone); four [+ATR] vowels [i,u,e,o] and five [−ATR] vowels [I,U,E,O,A]. Vowel harmony is not only determined by the [±ATR] quality of root vowels, as shown in (1), but also by the [±ATR] quality of dominant suffix vowels, as shown in (2). (The [+low] vowel [A] of the infinitive prefix in the examples in (1) is consistently [−ATR] because there is no [+ATR] vowel for it to alternate with; cf. further below.) Only Turkana data are provided in this abstract for reasons of space, but it should be noted that examples like those in (2a,b) are not attested in Maasai, because Maasai differs from Turkana in having only [+ATR] dominant suffixes.

The fact that a dominant suffix determines harmony in itself subverts stem identity, because the vowels of the stem to which the suffix attaches alternate to harmonically agree with the suffix. However, there are additional facts in both Maasai and Turkana that indicate that stem identity is an operative principle that restricts the vowel harmony process in certain respects. The [−ATR, +low] vowel [A] alternates with the [+ATR, −low] vowel [o] in suffixes, but only when affixed to a [+ATR] stem (6a vs. 6b). Otherwise, [A] blocks [+ATR] harmony when it is in the stem that a [+ATR] dominant suffix attaches to (6c), which serves to maintain stem identity. Although Maasai provides no further evidence for stem identity, the existence in Turkana of [−ATR] dominant suffixes provides three additional pieces of evidence for stem identity.

1. First, there is a process of glide insertion that operates only between a [+ATR, −low] root vowel [e,o] and a [−ATR] dominant suffix vowel, as shown in (4). The glide, which is itself [+ATR], blocks [−ATR] harmony between suffix and root, thus successfully maintaining stem identity.
2. Second, the [+ATR, +high] vowels [i,u], whether dominant (5a) or derived by harmony (5b), block [−ATR] harmony from a [−ATR] dominant suffix vowel only when they are in the stem that the dominant suffix attaches to (cf. (5c)). Blocking thus only happens when stem identity can be maintained as a result. (NB. This generalization holds only of Noske’s data, not Dimmendaal’s; cf. below.)
3. Third, a [−ATR, +low] vowel [A] (7a) that has become a [+ATR, −low] vowel [o] by [+ATR] harmony (7b) becomes a [−ATR, −low] vowel [O] when it is in the stem of a [−ATR] dominant suffix (7c). Although this does not maintain stem identity for the feature [±ATR] as in the other pieces of evidence for stem identity, note that it does maintain stem identity for the feature [±low]: the stem to which the [−ATR] stative resultative suffix in (7c) attaches is the very form in (7b), and this form has a [+ATR, −low] vowel [o]. Changing this vowel back to its original [−ATR, +low] form [A] would subvert stem identity more than is necessary; the optimal blend of harmony and stem identity thus demands a minimal change to the [−ATR, −low] vowel [O]. (NB. The particular forms in (7) are not found in Noske’s data, since the [+high] vowel of the benefactive suffix would block [−ATR] harmony.)

In sum, the facts of Maasai and especially of Turkana show that even though stem identity is partly subverted by vowel harmony in both languages, this subversion is restricted in a number of specific and independent respects that, taken together, strongly implicate an operative principle of stem identity.

The Consequences of Microvariation in Eastern Nilotic

Eric Baković, UCSD

Data:

- (1) Root-determined harmony (INF-rt-VEN)
 - a. [A-gol-un] 'to close'
 - b. [A-rem-un] 'to spear'
 - c. [A-dOk-Un] 'to climb'
 - d. [A-dUk-Un] 'to hide'
- (2) Suffix-determined harmony (GEN-rt-SUB in a,b; GEN-rt-GER in c,d)
 - a. [E-gOl-ErE] 'why is it closed?'
 - b. [E-rEm-ErE] 'why is it speared?'
 - c. [e-dok-e] 'way of climbing'
 - d. [e-duk-e] 'way of hiding'
- (3) Low vowel blocking (GEN-rt-HAB-VOI in a,b; GEN-rt-HAB-NOM in c)
 - a. [e-pup-o:n-o] 's/he is obedient'
 - b. [E-pEg-A:n-A] 's/he is argumentative'
 - c. [E-pEg-A:n-u] 'denial'
- (4) Glide insertion (GEN-rt-y-INST; -y- = inserted glide)
 - a. [A-pe-y-Et] 'bakery'
 - b. [A-los-y-Et] 'going'
- (5) High vowel blocking
 - a. [A-buk-ErE] 'why is it poured?' (GEN-rt-SUB)
 - b. [e-gol-okin-ErE] 'why is it closed for s.o.?' (GEN-rt-BEN-SUB)
 - c. [e-duk-Or-It] 's/he builds over there' (GEN-rt-MA-ASP)
- (6) A-o-O alternation (-k- = lexically-restricted epenthetic segment)
 - a. [A-k-IpUd-A-kIn] 'to trample for s.o.' (INF-k-rt-A-BEN)
 - b. [e-ibus-o-kin] 'it has fallen down for s.o.' (GEN-rt-A-BEN)
 - c. [E-IBUS-O-kIn-A] 'it has thrown itself down for s.o.' (GEN-rt-A-BEN-SR)

References cited:

- Archangeli, Diana and Douglas Pulleyblank. 1994. *Grounded Phonology*. MIT Press, Cambridge.
- Dimmendaal, Gerrit Jan. 1983. *The Turkana Language*. Foris, Dordrecht.
- Noske, Manuela. 1990. Vowel Harmony in Turkana. *SLS* 20, 123-144.
- Noske, Manuela. 1991. Feature-changing Harmony in Turkana. *BLS (Special Session on African Language Structures)*, 166-176.
- Noske, Manuela. 1996. [ATR] Harmony in Turkana. *SAL* 25, 61-99.
- Noske, Manuela. 2000. [ATR] Harmony in Turkana: A Case of FAITH SUFFIX » FAITH ROOT. *NLLT* 18, 771-812.
- Tucker, Archibald N. and Tompo ole Mpaayei. 1955. *A Maasai Grammar, with Vocabulary*. Longmans, Green and Co., London.