

Handout #13

Swahili

Swahili (Tanzania, Kenya): Data

(Halle and Clements 1983: 133)

<i>Singular</i>	<i>Plural</i>	<i>Gloss</i>
ubale	ṃbale	<i>piece</i>
udago	ṅdago	<i>nut grass</i>
ugimbi	ṅgimbi	<i>beer</i>
udzia	ṅdzia	<i>passageway</i>
ufuasi	fuasi	<i>imitation</i>
ufuko	fuko	<i>seashore</i>

Data

<i>Singular</i>	<i>Plural</i>	<i>Gloss</i>
uvufo	vufo	<i>ferrying</i>
uvumbi	vumbi	<i>speck of dust</i>
usiku	siku	<i>night</i>
usira	sira	<i>type of powder</i>
ufono	fono	<i>sewing</i>
ufanga	fanga	<i>bead</i>

Data

<i>Singular</i>	<i>Plural</i>	<i>Gloss</i>
wimbo	ɲimbo	<i>song</i>
wembe	ɲembe	<i>razor</i>
wakati	ɲakati	<i>time</i>

Alternating morphemes

- The singular differs from the plural in that it begins with **u** or **w**.
- The morpheme meaning “singular” is therefore **u** ~ **w**.
- Instead of **u** or **w**, the plural has different nasals.
- The morpheme meaning “plural” is therefore **ṃ** ~ **ṇ** ~ **ŋ** ~ **ɲ** ~ **∅** ~ **ɲ**.

Alternating sounds

- In this case, each alternating morpheme consists of a single sound, so the list of alternating sounds is identical to the list of alternating morphemes:
 - **u ~ w**
 - **ṃ ~ ṇ ~ ŋ ~ ɲ ~ ø ~ ɳ**

Distribution of the alternating sounds

- $u \sim w$
 - [w] does not occur before a consonant, but does occur elsewhere.
 - [u] occurs before a consonant, as well as elsewhere.
- $ṃ \sim ṇ \sim ŋ \sim ɲ$
 - A nasal does not occur before a consonant with a different place of articulation, but does occur elsewhere.

Distribution of the alternating sounds

- nasal ~ \emptyset
 - * $[+nas]$ $[-son, +cont]$
- Syllabic nasal ~ η
 - A syllabic nasal occurs only at the beginning of a word before a consonant.
 - A nonsyllabic nasal occurs only elsewhere.

Analysis

- **Underlying representations of the alternating morphemes**
 - /w, ɲ/
- **Rules**
- Nasal deletion
 - [+nas] --> ∅ / ____ [-son, +cont]
- Syllabic formation
 - C --> V / # ____ C

Rules

- Nasal place assimilation
 - [+nas] --> [α Place] / _____ C
[α Place]
 - As in Handout #12, alpha (α) is a variable over feature coefficients (+ or -).
 - [Place] is a variable over place features: [lab], [cor], [ant], [dist], [back].
 - So in a rule with two sounds marked [α Place], the sounds must match in all place features.
 - This rule makes the nasal match the following C in place of articulation.

Derivations

Underlying representation	/w -bale/	/ɲ -bale/	/ɲ - fuko/
Nasal place assimilation	_____	/m -bale/	/m - fuko/
Nasal deletion	_____	_____	/fuko/
Syllabic formation	/u -bale/	/m̩ -bale/	_____
Surface representation	[ubale]	[m̩bale]	[fuko]

Reference

- Halle, Morris, and G.N. Clements (1983). *Problem Book in Phonology*. MIT Press, Cambridge.