THE MORPHOPHONEMICS OF SOMALI AND THEIR PRESENTATION IN THE CLASSROOM

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Morphophonemics might as well be a dirty word for the looks of horror or disgust it engendered in my first students years ago. Puns like "mournful phonemics" and "mortal phonics" abounded. While the term may have little place in the language classroom, the phenomena to which it refers are essential to gaining communicative competence, depending, of course, on their role in the target language. The consequences of saying [wayfs] instead of [wayvz] in an English sentence such as "He has three wives" are not dire, but in some languages the failure to change the form of a word in accord with inflectional or derivational rules may lead to genuine misunderstanding or miscommunication.

My first encounter was with fourteen of these rather mystifying sound changes when I was learning and (later) teaching the Bisayan dialects of the central Philippines. [For a pan-dialectal summary of the changes involved see Zorc 1977:54-60 and for Aklanon Bisayan see Zorc 1968:38-49.] Peace Corps volunteers needed to come to grips with these changes, not only to communicate coherently, but also to be able to find a word in the dictionary; for example, kasúdlan meat; contents must be sought under the headword sulúd enter. This was so because there is a long-standing lexicographic tradition in the Philippines of putting all derivations under the root word rather than challenged (Zorc 1992)]. Realizing what a bitter pill this was to swallow for nonlinguistically-oriented students, I once tried to get cute and called them "the case of the missing links" (Zorc 1969:32-34).

While the fourteen Philippine changes may have seemed an obstacle or a challenge to language pedagogy, I have since come across complex changes in word form in the Aboriginal languages of Australia and in Armenian, where I have had to deal with them within the curricula I was developing. But no language that I know of comes near Somali which has no less than thirty-nine. This is surely something worthy of mention in the Guiness Book of Records!

In developing the Somali Textbook (Zorc and Issa, 1990), we worked on two basic principles: that of high text frequency (and therefore importance to the curriculum whereby a student could get the greatest mileage out of language lessons) and that of programmed instruction (whereby harder units are built upon easier ones). Morphophonemic changes were therefore introduced where and when they were warranted. However, we felt that they were of such importance that we dedicated the last chapter of the book to a comprehensive review of them before the student left for the real world of Somali speech and literature. In the Somali-English Dictionary (Zorc, Osman and Luling, 1991; Zorc and Osman, 1993) we also presented a reasonably lengthy discussion of them because of the need for and difficulty of isolating a root word (headword) from speech forms encountered. version of the latter is presented here, where I will be discussing general morphophonemic changes (2.01-06) and then the specific changes affecting individual sounds (2.07-39). Although most of these are covered in one or another of the grammatical articles or books listed in the References section, I am not aware of any study covering all 39.

GENERAL SOUND CHANGES

2.01. FUSION OR THE COMBINATION OF WORDS. The textually most frequent change in Somali is also the most complex. Often two or more words run together in a highly abbreviated fashion, e.g., seyte so she said = si (da) way + ay she + tiri (she) said. Most such combinations encountered in our resources were included in the dictionary, but the student was advised to be aware of the possibilities, and check out all potential component parts of new words encountered.

In particular, the subject pronouns aan, aad, uu, ay \sim ey, aynu, annu, eydin are attached to the end of other words, e.g., inaanan that I not = in + aan [vpro] + aan [neg]. In such combinations, various sound changes may also apply, e.g., maxay + uu \rightarrow muxuu what he? (with vowel harmony) or maanta today and uu \rightarrow maantuu today he (with vowel loss).

The classifiers baa, ayaa FOCUS, waa DECLARATIVE, and ma INTERROGATIVE OF NEGATIVE also run together with other words, e.g., ninkaa = ninka the man + baa, waa + uu $he \rightarrow$ wuu he is/was, baannu = baa + aannu we, maaha = ma + aha (he/she) is not.

In addition, the prepositions u, ku, ka, la frequently combine with one another and with object pronouns, e.g., idin = idin + u for you. Such combinations were also listed in the dictionary. Although in some cases an attempt was made to gloss the combined form, other translations can apply since the actual meaning will be heavily dependent on the context.

2.02. VOWEL HARMONY. A short vowel often changes to match the vowel of the suffix or next word, e.g., sac $cow + -kii \rightarrow sicii$ the cow; xoolo $cattle + -kii \rightarrow xoolihii$ the cattle; dhac fall $+ -een \rightarrow$ dheceen they fell; leh having $+ aa \rightarrow lahaa$; wax something $+ -a \rightarrow waxa$ the thing, what [CLEFT FOCUS]; wax $+ ii \rightarrow wixii$ the thing [KNOWN]; waxa + uu he $\rightarrow wuxuu$ as in wuxuu doonayaa what he wants. In the flow of speech, final vowels are usually affected this way, e.g., caano $milk \rightarrow caana$ in laba koob oo caana ah two cups of milk. This is very frequent in Somali texts and is further treated in three common vowel shifts below ($e \rightarrow a$, $e \rightarrow i$ and $o \rightarrow a$).

2.03. VOWEL LOSS. Nouns of Declension 3 and verbs of Conjugation 3b regularly lose the final vowel of their stem, e.g., gabadh $girl + -o \rightarrow gabdho \ girls$ or hayso have + -teen \rightarrow haysteen they possessed. In the derivation of some other verbs and adjectives, a final short vowel will drop out when additions are made to the root, e.g., hadal $talk + -ay \rightarrow hadlay$ (he) talked; ladan $good + ahay \ I \ am \rightarrow ladnahay \ I \ feel$ fine. But this change will not occur if the resulting word would have three consonants together; note: orod + -tay \rightarrow orodday (she) ran (not *ordtay).

Some words can be seen as interrelated if loss of a final vowel is posited in derivations, e.g., caanee whiten with milk ~ caano milk, cashee dine ~ casho dinner.

2.04. CONSONANT DOUBLING OR GEMINATION. Although consonant doubling (or gemination) is important in distinguishing many words, only bb, dd, gg, ll, mm, nn, and rr can occur. In the Northern dialects dhdh may occur in pronunciation, but it is generally spelled as a single dh: contrast cadho anger and cadhdho scabies, mange.

Some monosyllabic words end with a notional double consonant, since this comes out in derivations or inflections with vowel-initial suffixes, e.g., cab (cabbay) drink, cad (caddaan) white, dheg (dheggan) stuck, attached, hel (helloon) obtainable, rim (rimman) pregnant (of animal), ban (bannaan) open, hor (horree) precede.

Nouns of Declension 2 double the final consonant before the -o suffix is added, e.g., saaxiibbo friends, aqallo houses, inammo boys, habeenno nights, lambarro numbers.

If a consonant may be double, in the formation of most COMPOUND WORDS it will be double, e.g., galtibbax become assimilated, Maalmaddoone fourth month of Somali lunar calendar, labaggalley hypocracy, tukallalmis "hanging crow" (wild plant sp.), uurkummaanle clairvoyant, guryannoqod returning home of pets, ilmarrogad movement of the child in the womb.

Conversely, if a consonant may not be double, a compound word bringing such consonants together will be spelled with a hyphen, e.g., madax-xige vice-president, or it may be fused into one word with a single consonant (madaxige), which may be construed as another instance of consonant loss (immediately below).

2.05. CONSONANT LOSS. When a combination of d + t would occur, the cluster reduces to t, as in qaad(o) + -taa \rightarrow qaataa l take, waad(o) + -tay \rightarrow watay he drove.

When a masculine noun ends in c, h, kh, q or x, the -ka suffix reduces to -a, e.g., raha the frog, magacaa your name, dhinacee which side?, and dariiqan this street.

2.06. SOUND-SWITCHING OR METATHESIS. In a few words after vowel loss has occurred the two middle consonants will switch places, e.g., culus + -aa → cuslaa he was heavy; duman + -ay → dunmay got organized; neceb + -ayd → nebcayd she disliked it. This change is rather rare in word derivation, but it can be seen in the alternate forms of several loanwords, e.g., abhi ~ ahbi plead, isxaan ~ ixsaan favor, grace, Kabco ~ Kacbo Kaaba, macalgad ~ malgacad metal spoon, tijaabi ~ jitaabi test.

SPECIFIC SOUND CHANGES

The following are the most common variations for which students should be on the lookout; they are presented in alphabetical order as a reference guide.

2.07. a → e	A short a in monosyllabic verbs will tend to become e when there is an e or i in an added syllable, e.g., tag $go + -i \rightarrow tegi$ to go [infinitive], gal enter $+ -i \rightarrow geli$ insert. [This is somewhat like
	VOWEL HARMONY (see above).
2.08. $a \rightarrow o$	Only affects a few pronoun + preposition compounds, e.g., inoo
2.09. a → u	for $us = ina \ us + u$ for, to, loo for someone = la someone + u. The final -a of a determiner becomes u to indicate subject marking, e.g., naag + -ta + u \rightarrow naagtu the woman [SUBJECT], nin + -ka + u \rightarrow ninku the man [SUBJECT].

2.10. ay ~ ey	The verbal endings of conjugations 1 and 3 are generally written as -ay or -tay, but may also be seen as -ey or -tey, e.g., arkay ~ arkey I saw. Similarly the possessive suffixes reflect this alternation, e.g., -kayga ~ -keyga my, hooyaday ~ hooyadey my mother.
2.11. $b \rightarrow bb$	Although a legitimate consonant cluster, some verb roots that end in b may double this consonant when a vowel-initial suffix is added, e.g., cab $drink + -ay \rightarrow cabbay$ (he) $drank$. This may also happen in compound words, e.g., biyo $water + beel lose \rightarrow biyabbeel$ evaporate.
2.12. $b \sim m$	These sounds are sometimes interchangeable, e.g., kibis or kimis
2.13. $d \rightarrow dd$	bread, toban or toman ten. [See also m ~ b below.] Although a legitimate consonant cluster, some verb roots that end in d may double this consonant when a vowel-initial suffix is added, e.g., cad white + -ee -> caddee whiten, or when words are compounded.
2.14. dh ~ r	The sound dh in Northern Somali is replaced by r in Standard Somali except at the beginning of words or where the dh is double: e.g., the word for girl is either gabadh (N) or gabar (S & C). The latter form is increasingly becoming standard usage and
2.15. $dt \rightarrow t$	is representative of that used here. When a verb of Conjugation 3 ends in the sequence -do and the suffix would begin with -t, the dt reduces to a simple t, e.g., $qaado + -tay \rightarrow qaatay I took it for myself$.
2.16a. e → a	A final short -e in nouns will change to -a to match the vowel of any addition made to the word, e.g., madaxweyne president + -ha madaxweynaha the president; bare teacher aabbe father + -kaaga aabbahaa your father. [This is an instance of VOWEL HARMONY (see above).]
2.16b. e ~ a	These vowels are sometimes used interchangeably, e.g., the word
2.17. e → i	beddel change may also appear as baddal. A final short -e in nouns will change to -i to match the vowel of any addition made to the word, e.g., fure key + -hii → furihii the key (past reference). [This is an instance of VOWEL HARMONY (see above).]
2.18. $\mathbf{g} \rightarrow \mathbf{j}$	When verbs of Conjugation 1 that end in g are transformed to verbs of Conjugation 2a (with -i), g generally changes to j, e.g., nuug $suck + -i \rightarrow nuuji suckle$.
2.19. g → k	There is a general rule that stops at the end of syllables must be voiced, so that g is usually replaced by k when no longer in this position, e.g., arkay (1) saw from arag see!, adag hard + -ee -> adkee harden.
2.20. $\mathbf{i} \rightarrow \mathbf{y}$	Some stems that end in -i have derived forms with -y-, e.g., guri house $+ -o \rightarrow guryo$ houses, bari $+ -een \rightarrow baryeen$ they spent the night in peace.
2.21. iy \rightarrow sh	Sometimes when verbs are conjugated the sequence of $i + y$ will change to sh, e.g., tiri count $+ -yo \rightarrow tirsho$ (I do) not count; is mari rub on oneself $+ -yaa \rightarrow ismarshaa$ for external use.

2.22. k- (lost)	The masculine noun suffix -k is dropped after c, h, kh, q, or x, e.g., sanduug box + -ka -> sanduug the keep c, h, kh, q, or x,
2.23. $\mathbf{k} \rightarrow \mathbf{g}$	raha the frog. magac name + leases the box; rah frog + -ka ->
	The masculine noun suffix -k becomes -g after g, y, w, or i, e.g., rag mankind + -kii \rightarrow raggii the men; oday old man + -ka \rightarrow odayga the old man; guri house + -kee \rightarrow gurigee which house?
2.24. $k \rightarrow h$	i, e.g., ololo campaign + -ka -> ololaha the campaign beautiful except
2.25. $kh \sim q$	A few roots containing these sounds are sometimes found as alternatives, e.g., khasaaro or gasaaro damaga dhall
2.26. $ln \rightarrow ll$	In noun derivation and verb conjugation, even though a legitimate consonant cluster, an I followed by an n may become II, e.g., dil
2.27. lt \rightarrow sh	In feminine noun inflection and verb conjugation the
	bil moon, month + tan this \rightarrow bishan this month; qosol laugh + -tay \rightarrow qososhay (she) laughed; calcol stomach
2.28. $m \sim b$	In a few roots these sounds are sometimes interchanged
2.29. $m \rightarrow n$	In the inflection of a few yerbs of Conjugation 21, 11
2.20	brings two consonants together, e.g., dhimo die
2.30. $n \rightarrow m$	sound changes to m. e.g. nin man with nine miner with the
$2.31. \text{ nr} \rightarrow \text{rr}$	Although a legitimate consonant cluster, an r followed by an n may become rr, e.g., bar teach + -nay - harrow (ne)
2.32. $o \rightarrow a$	A final short -0 will change to -2 to match the
	addition made to the root, e.g., magaalo city + -da \rightarrow magaalada the city; ilko teeth \rightarrow ilkaha the teeth; aarso take revenge \rightarrow aarsaday (he) took revenge. [This is an instance of VOWEL HARMONY (see
2.33. $q \rightarrow j$	When verbs of Conjugation 1 that and in
2.34. $q \sim kh$	verbs of Conjugation 2a (with -i), g generally changes to j, e.g., daaq graze \rightarrow daaji make graze. A few roots containing these sounds are sometimes found as alternatives, e.g., qaash \rightarrow khaash rotten food, dawaq \rightarrow dawakh be
2.35a. $t \rightarrow d$	
	On verbs a t becomes d after c, d, h, q, x, w, and between vowels, e.g., dhac fall + -tay \rightarrow dhacday (she) fell; bax go out + -tay \rightarrow baxday (you) went out; illow forget + -tay \rightarrow illowday (you) forgot; joogso stop + -tay \rightarrow joogsaday (I) stopped.

2.35b. $t \rightarrow d$	On nouns, the feminine -t becomes -d after all vowels and d, e.g.,
	kaalmo assistance + -ta → kaalmada the assistance; jamhuuriyad
2.36. $t \rightarrow dh$	republic + -ta → jamhuuriyadda the republic.
$2.30.1 \rightarrow un$	On verb roots and feminine nouns ending with -dh, when a suffix
	begins with t that consonant will assimilate to dh, e.g., gabadhdha
	the girl; xidhdhay she tied it. Note that this double dhdh is
	usually spelled single, i.e., gabadha, xidhay.
2.37. $t \rightarrow s$	In inflecting the PROGRESSIVE TENSES (with -ay-) and CONJUGATION 2
	VERBS, s appears instead of t, e.g., keen bring + -ay- + -taa ->
	keenaysaa (she) is bringing, kari cook + -tay → karisay (you) cooked.
2.38. $\mathbf{w} \rightarrow \mathbf{b}$	When words ending with a w are inflected, the sound will often
	change to b between vowels, e.g., madow black → madoobeeyey
	it became black, illow forget \rightarrow illobey I forgot, koow iyo toban \rightarrow
	koobyo toban eleven.
2.39. y+	
2.00% y 1	In verbs of Conjugation 2, the consonant y is added when the
	suffix begins with a vowel, e.g., tiri count $+$ -ay \rightarrow tiriyey (I)
	counted, safee clean $+$ -een \rightarrow safeeyeen they cleaned.

REFERENCES

Andrzejewski, B. W. 1964. The Declensions of Somali Nouns. London: University of London, School of Oriental and African Studies.

Agostini, Francesco, Annarita Puglielli, et al. 1985. Dizionario Somalo-Italiano.

Cooperazione Italiana Allo Sviluppo. Rome: Gangemi Editore. Bell, C.R.V. 1953. The Somali Language. London: Longmans, Green & Co.

Caney, John Charles. 1984. The Modernisation of Somali Vocabulary with Particular Reference to the Period from 1972 to the Present. Hamburg: Helmut Buske Verlag.

Carter, Joy. 1984. La Soco Af Soomaaliga (Go Along with the Somali Language).

Nairobi: Mennonite Board in East Africa.

Hyman, Larry M. 1981. "Tonal Accent in Somali," Studies in African Linguistics 12.2:169-203.

Issa, Abdullahi A. and John D. Murphy. 1984. Somali Newspaper Reader. Kensington: Dunwoody Press.

Issa, Abdullahi A. 1987. Somali Common Expressions. Wheaton: Dunwoody Press. Keenadiid, Yaasiin C. 1976. Qaamuuska Af - Soomaaliga (A Dictionary of the Somali Language). Mogadisho.

Labahn, Thomas, ed. 1984. Proceedings of the Second International Congress of Somali Studies, Volume 1: Linguistics and Literature. Hamburg: Helmut Buske Verlag.

Osman, Madina and R. David Zorc. 1983. Somali Handbook. Kensington, MD: Dunwoody Press.

Pia, J. Joseph, Paul D. Black, et al. 1966. Beginning in Somali. Syracuse University: Linguistics Section, Program of Eastern African Studies.

Saeed, John. 1987. Somali Reference Grammar. Wheaton: Dunwoody Press.

Warner, John. 1984. Somali Grammar. Nairobi: Mennonite Board in East Africa. Three mimeographed volumes.

Zorc, R. David and Beato de la Cruz. 1968. A Study of the Aklanon Dialect: Volume One - Grammar. Kalibo: Aklan Printing Center.

Zorc, R. David, with Vicente Salas Reyes, et al. 1969. A Study of the Aklanon Dialect: Volume Two - Aklanon-English Dictionary. Kalibo: Aklan Printing Center.

Zorc, R. David. 1977. The Bisayan Dialect of the Philippines: Subgrouping and Reconstruction. Pacific Linguistics C.44. Canberra: The Australian National University.

Zorc, R. David and Abdullahi Issa. 1990. Somali Textbook. Wheaton: Dunwoody

Zorc, R. David, Madina Osman and Virginia Luling. 1991. Somali-English Dictionary.

Second Edition. Kensington: Dunwoody Press.

Zorc, R. David. 1992. "Morphophonemics and their representation in the dictionary (the roles of lexicographer, linguist and layman)." Paper presented to the First Asian International Lexicography Conference. Manila. October 5-9, 1992. Zorc, R. David and Madina Osman. 1993. Somali-English Dictionary with English

Index. Third Edition. Kensington: Dunwoody Press.