

ABSTRACT

Quantity alternations are common across modern Arabic varieties and interact opaquely with the phonological system. Whether these alternations reflect word-final shortening of underlyingly long segments, or pre-suffixal lengthening of underlyingly short segments has been disputed. I argue that the segments that alternate in length are underlyingly short and undergo pre-suffix lengthening as part of a synchronic prosodic preference for affixes to attach after a stressable foot. Furthermore, this prosodic preference underlies a set of disparate exceptions to metrical stress across Arabic varieties: pre-affix stress movement, feminine past tense verbs with suffixes, and final stressed long vowels. Thus, this paper advances our understanding not only of complex interactions in Arabic, but also in the role of prosody in affixation.

The length alternation is not a matter of open/closed syllables or tonic lengthening, but related to the morphological structure.

1. Qatari Vowel Length Alternation (Al-Sulaiti 1993)

- a) 'jara -∅
buy.PFV-SBJ.3SG.M
'he bought'
- b) ja'ra: -∅ -hum
buy.PFV-SBJ.3SG.M -OBJ.3SG.M
'he bought them'
- c) ja'ra: -∅ -l -kum
buy.PFV-SBJ.3SG.M-DAT-OBJ.3SG.M
'he bought for you'

2. Baghdad Iraqi Length Alternation (Majdi 1988)

- a) ki'tab -na
write.PFV-SBJ.1PL
'we wrote'
- b) kitab -'na: -ha
write.PFV-SBJ.1PL-OBJ.3SG.F
'we wrote it'
- c) kitab -na: -'ha: -l -ak
write.PFV-SBJ.1PL-OBJ.3SG.F-DAT-OBJ.2SG
'we wrote it for you'

Furthermore, quantity alternations occur with both vowels and consonants across modern Arabic varieties:

Variety	Word-Final	Pre-Suffixal
Oran Algerian	sa'bag -na overtake.PFV-SBJ.1PL 'we overtook'	sabag -'na: -h overtake.PFV-SBJ.1PL-OBJ.3SG.M 'we overtook him'
Cairene	'bana -∅ build.PFV-SBJ.3SG.M 'he built'	ma ba'na: -∅ -f NEG build.PFV-SBJ.3SG.M-NEG 'he didn't build'
Lebanese	'sakar -it intoxicate.PFV-SBJ.3SG.F 'she intoxicated'	saka'r -it: -ak intoxicate.PFV-SBJ.3SG.F-OBJ.2SG 'she intoxicated you'
Rwaili	'jif -tin see.PFV-SBJ.2PL.F 'you (f.pl.) saw'	ʃif -'tin: -əhum see.PFV-SBJ.2PL.F -OBJ.3PL 'you (f.pl.) saw them'

The underlyingly length of the consonants is less ambiguous than the vowels, and clearly pre-suffixal gemination, as the alternative doesn't work:

NO WORD FINAL DEGEMINATION

3. Cairene Final Geminate Stress (Davis & Ragheb 2014)

- a) 'ʔamal
'hope'
- b) ʔa'mal:
'more/most boring'

WORD MEDIAL DEGEMINATION UNLIKELY –

Arabic usually preserves the geminate (4) or adds an epenthetic vowel (5).

4. Oran Algerian Geminate-Singleton Minimal Pairs (Bouhadiba 1988)

- a) kad:b -u
accuse.of.lying.PFV-SBJ.3PL
'they accused someone of lying'
- b) kadb -u
lie.PFV-SBJ.3PL
'they lied'

5. Mak'an Medial Geminates versus Singletons (Kabrah 2004)

- a) mad: -∅ -a:ha
extend.PFV-SBJ.3SG.M -OBJ.3SG.F
'he extended her'
- b) katab -∅ -ha
write.PFV-SBJ.3SG.M -OBJ.3SG.F
'he wrote it (f.)'

THEREFORE:

PRESUFFIXAL LENGTHENING

Why?

Prosodic Preference to attach after a stressable syllable

This prosodic attachment preference can be seen in cases of optional lengthening:

6. Muscat Omani Optional Length Alternations (Glover 1988)

- a) katb -∅ -il: -oh
write.PFV-SBJ.3SG.M -DAT-OBJ.3SG.M
'he wrote to him'
- b) katab -∅ -l -oh
write.PFV-SBJ.3SG.M -DAT-OBJ.3SG.M
'he wrote to him'

It also accounts for the following disparate set of exceptions to metrical stress in Arabic that have lacked satisfactory analyses to date. These all move stress to before the affix

Arabic Stress Exceptions

FEMININE SG PAST TENSE VERBS + SUFFIX

7. Makkan: Same CVCVCV but different stress

- a) 'gatal -u
kill.PFV-SBJ.3PL
'they killed'
- b) ga'l -at -u
fry.PFV-SBJ.3SG.F -OBJ.3SG.M
'she fried it'

PREFIX STRESS MOVEMENT

8. Moroccan Casablanca: Same CVCCVC but different stress

- a) law'y-in
wilted-PL
'wilted (pl)'
- b) 'kal -kum
eat.PFV-TSG.M -OBJ.2PL
'he ate you'

LONG VOWELS ESCAPE EXTRAMETRICITY

9. Palestinian (Syllable Extrametricality)

- a) 'maktab
office
- b) kur 'si-i
chair – POSS.3SG.M
'office' 'his chair'