An Optimality-Theoretic Analysis of Emphasis Spread in Rural Jordanian Arabic and Southern and Northern Palestinian Dialects (A Comparative Study)

Modern Standard Arabic has four primary pharyngealized coronal consonants traditionally known as emphatics: /ṣ/, /ḍ/, /ṭ/, and /ð̣/. The distinctive feature that characterizes Arabic emphatic segments is *retracted tongue root* [RTR]. Thus, emphatics are underlyingly [RTR], whereas all other segments do not have the feature [RTR] (Davis, 1995).

The pharyngealization of emphatics can influence the pronunciation of other neighboring sounds; i.e. the emphasis (the [RTR] feature) may spread onto other segments, including consonants and vowels, via assimilation. The directionality and domain of emphasis spread (ES) differ considerably from one Arabic dialect to another. Emphasis may spread onto the neighboring vowels only over a certain number of open syllables in multi-syllabic words (Ali and Daniloff, 1972) or into the whole word (Younes 1993; Davis 1993, 1995; Watson 1999). For instance, in Cairene Arabic the domain of emphasis is normally the whole word (Youssef, 2013), whereas in Abha (a dialect spoken in south Saudi Arabia) emphasis customarily affects the adjacent vowel (Younes, 1991). The spread might even extend over word boundaries as in Qatari Arabic (Watson, 1999). The patterns of ES most discussed in the literature are normally the ones affecting the entire word (Davis 1995 and Watson 1999) or only adjacent vowels (Younes 1991 and Al-Masri 2010). Nevertheless, in a sub-variety of rural Jordanian Arabic spoken in northern parts of Jordan, there is an interesting phenomenon where the domain of ES is the syllable containing the emphatic, regardless of whether the spreading from the emphatic is leftward or rightward. The data in (1) provide some illustrative examples. (In the transcription system utilized I follow Davis (1995); the underlying emphatics are represented by a dot underneath the letter, surface pharyngealized sounds (the target of emphasis) are represented by capital letters, and short vowels are represented by one vowel and long vowels by two.)

(1) *Words displaying spread of emphasis whose domain is the syllable*

a.	ʕayYAAṬ	‘cry baby’
b.	naŠIIṬ	‘active’
c.	ṢAYyaad	‘hunter’
d.	ṢAdaa	‘echo’
e.	naṢIIħah	‘advice’
f.	faṬIInah	‘witted’
g.	ʕAð̣ð̣AH	‘bite’
h.	ṬIIN	‘mud’

The unmarked structure in this sub-variety as seen in the data in (1) is the emphatic syllable which is the driving force behind the spread of emphasis from underlying emphatics to other segments within the domain of the syllable. This study, unlike the few previous OT studies on Arabic ES such as Van de Vijver’s (1996) and McCarthy’s (1997) on the southern and northern Palestinian dialects, and Youssef’s (2013) on Cairene Arabic, offers an OT analysis of the syllable-bounded ES in this Jordanian sub-variety in which EMPHATIC-σ is an undominated constraint, and shows the hierarchical interaction of this constraint with other high ranked and lower ranked constraints (MAX-[RTR], DEP-LINK-[RTR], [RTR]-LEFT, [RTR]-RIGHT), which all together favor candidates with the unmarked emphatic syllable over other candidates with marked structure. Additionally, this study offers a comparison with the OT analysis of emphasis spread in southern and northern Palestinian varieties (McCarthy, 1997) showing how the three varieties (i.e. rural Jordanian, southern Palestinian and northern Palestinian) can be distinguished by somewhat different rankings of the relevant constraints.

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