

Phonological Processes in Nizwa Arabic: Change and Persistence

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This study examines the phonological processes of vowel labialisation and emphasis spread in the Omani Arabic dialect of Nizwa. Referring to social and phonetic constraints on the two processes, the study aims to address the questions: *a.* what factors can motivate or constrain dialect change? And *b.* are there factors which lead to stability in language, and militate against change?

Vowel labialisation is a process which changes the high front vowel /i/ into the back vowel [u] in environments where the vowel is neighboured by /r/ or a consonant that is [+labial], [+emphatic], [+velar] or [+guttural] (Watson 1999; Bellem 2007; Ambu Saidi 2019). Furthermore, emphasis spread is an assimilatory process by which vowels and the plain consonants /t, d, s, z, ð/ are produced with a secondary articulation that involves a constriction in the upper pharynx as a result for having one of the emphatic Arabic sounds /t^ʕ, d^ʕ, s^ʕ, z^ʕ, ð^ʕ/ in the phonological word (Davis 1995; Watson 2002). Using sociolinguistic interviews and a picture task, the two features are examined in the speech of 38 speakers who migrated to the capital Muscat, where they become in contact with speakers of other varieties of Arabic, creating an ideal situation for dialect change (Chambers 2002). Data is recorded for whether speakers use the non-labial [i] or the local labialised form [u] and whether emphasis spreads into the coronal /s/ in the respective phonological environments.

Statistical analysis using R shows that while the local use of labialisation is subject to change, the local use of emphasis spread resists change. The incoming non-labialised variant is more frequent (59%, N=5747) than the local labialised form. A mixed-effects regression test shows that the factors of gender, age, age of arrival (AoA) and length of residence (LoR) in Muscat are all significant predictors for labialisation ($p < 0.05$). A higher use of the non-labialised form is associated with women, speakers aged 30-50, AoA of 18 years and above and with longer LoR (10+ years). On the other hand, emphasis spread is prevalent in the data (95%, N=1686) with a significant difference between the emphatic and the plain non-emphatic forms ($p < 0.001$). A mixed-effects test confirms that no significant variation is attested for the social factors ($p > 0.05$) in this variable.

The change in the use of labialisation can be interpreted in light of the effect of speakers' social contact and involvement in the market place (Milroy & Milroy 1978; Sankoff & Wagner 2006), which grant speakers access to educated speakers' speech and trigger the shift towards the non-labialised variant. Contrarily, the stability in the use of the emphatic form [s^ʕ] is attributed to phonetic reasons. The presence of an emphatic sound requires the retraction of the tongue root, and this [+RTR] feature spreads into neighbouring sounds, leftwards and rightwards, rendering them emphatics (Al Khatib 2008). These findings highlight that social factors can motivate some phonological changes, yet other phonological processes may resist change despite being under the same social influences due to phonetic requirements.