

Pharyngealization Spread in Ibbi Dialect of Yemeni Arabic: An Acoustic Study

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Abstract : This paper examines the pharyngealization spread in one of the Yemeni Arabic dialects, namely, Ibbi Arabic (IA). It investigates how pharyngealized sounds spread their acoustic features onto the neighboring vowels and change their default features. This feature has been investigated quietly well in MSA but still has to be deeply studied in the different dialect of Arabic which will bring about a clearer picture of the similarities and the differences among these dialects and help in mapping them based on the way this feature is utilized. Though the studies are numerous, no one of them has illustrated how far in the multi-syllabic word the spread can be and whether it takes a steady or gradient manner. This study tries to fill this gap and give a satisfactory explanation of the pharyngealization spread in Ibbi Dialect. This study is the first step towards a larger investigation of the different dialects of Yemeni Arabic in the future. The data recorded are represented in minimal pairs in which the trigger (pharyngealized or the non-pharyngealized sound) is in the initial or final position of monosyllabic and multisyllabic words. A group of 24 words were divided into four groups and repeated three times by three subjects which will yield 216 tokens that are tested and analyzed. The subjects are three male speakers aged between 28 and 31 with no history of neurological, speaking or hearing problems. All of them are bilingual speakers of Arabic and English and native speakers of Ibbi-Dialect. Recordings were done in a sound-proof room and praat software was used for the analysis and coding of the trajectories of F1 and F2 for the low vowel /a/ to see the effect of pharyngealization on the formant trajectory within the same syllable and in other syllables of the same word by comparing the F1 and F2 formants to the non-pharyngealized environment. The results show that pharyngealization spread is gradient (progressively and regressively). The spread is reflected in the gradual raising of F1 as we move closer towards the trigger and the gradual lowering of F2 as well. The results of the F1 mean values in tri-syllabic words when the trigger is word initially show that there is a raise of 37.9 HZ in the first syllable, 26.8HZ in the second syllable and 14.2HZ in the third syllable. F2 mean values undergo a lowering of 239 HZ in the first syllable, 211.7 HZ in the second syllable and 176.5 in the third syllable. This gradual decrease in the difference of F2 values in the non-pharyngealized and pharyngealized context illustrates that the spread is gradient. A similar result was found when the trigger is word-final which proves that the spread is gradient (progressively and regressively).

Keywords : pharyngealization, Yemeni Arabic, Ibbi dialect, pharyngealization spread

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