

Voicing contrast in Najdi Arabic initial stops

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Voicing contrast has been investigated to clarify its phonetic realisation and address the precise articulatory and acoustic correlates that are used in identifying the distinction between phonologically voiced and voiceless obstruents. It has been found that the acoustic correlates for voicing contrast differ from one language to another (Stevens and Klatt 1974, Flege and Port 1981, Keating et al. 1983, Yeni-Komshian et al. 1977), and they are affected by various linguistic factors which indicate that the phonetic realisation of voicing is complex and requires accurate explanation. This complexity raised questions about the sufficiency of the abstract phonological description of voiced and voiceless obstruents which is based on traditional distinctive features ([+voice] [-voice]).

The present study aims to contribute to the field by examining voicing contrast in stops in Najdi Arabic. Voicing contrast in stops was investigated word-initially in sentence medial position in monosyllabic CVC/CVCC real words. The test words include all short and long vowels that exist in Najdi Arabic, and they were embedded in a sentence context and preceded by the carrier phrase [ʔana ʔagool] 'I say'. The Participants were 12 monolingual native speakers of Najdi dialect (6 males, 6 females) whose their ages were from 25- 35. They were instructed to read the sentences in their native dialect and their pronunciation was recorded. All the tokens were investigated using Praat (Boersma and Weenink 2012) and various acoustic correlates were examined including VOT, closure duration, the duration of voicing in the closure, the following vowel duration and the frequency of F1 and F0 in the onset of the following vowel.

The results revealed that stops in Najdi Arabic contrast prevoicing with long lag VOT, which may indicate that voicing contrast in phonologically voiced and voiceless stops in Najdi Arabic is specified by the two phonological features [voice] and [spread glottis]. The results also showed that the strong acoustic correlates across speakers and linguistic factors (place of articulation, the quality of the following vowel) were VOT and F0 onset.

References

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