

## A sociophonetic study of fricative variation in Gulf Pidgin Arabic

This study examines variation among fricatives in Gulf Pidgin Arabic (henceforth GPA), a variety spoken by immigrant workers living in the Gulf States–Saudi Arabia, Qatar, Kuwait, Bahrain, and Oman (see Smart 1990). More specifically, we study patterns in production of marked consonant segments of Arabic from a corpus of GPA speakers working in Saudi Arabia. Six consonant alternations (local variant vs. L1 variant) were analyzed for this study: (1) /θ/ vs. /t/ , (2) /s<sup>ʕ</sup>/ vs. /s/, (3) /χ/ vs. /k/, (4) /ʁ/ vs. /g/, (5) /ħ/ vs. /h/, (6) and /ʕ/ vs. /ʔ/ (or deletion). The study considers how the length of residency in Saudi Arabia and L1 of the GPA speakers influence their use of these segments and, in particular, how their realization approximates local norms.

GPA is characterized as a pidgin by various scholars, including Smart (1990), Neass (2008), and Bakir (2010). According to Bakir, GPA represents “the reduced linguistic system used in communication between the non-national labor and the native Arabic-speaking community in the various countries of the Arab Gulf and Saudi Arabia” (2010:202). It is also used as a means of communication by the expatriate labor force in this area, particularly those groups who have different linguistic backgrounds, who share no common language, and who immigrated to the region following the discovery of oil in the late 1930s (Bassioney 2010). This immigrant population has grown consistently for decades, and in 1974, the total number of the foreign workers in Saudi Arabia was roughly 1.8 million. According to the Central Department of Statistics and Information in Saudi Arabia (2014), this number had increased to 8.4 million workers, accounting for nearly 44% of the local population. The current study focuses on immigrants from India whose L1 is Malayalam, a Dravidian language spoken in Southern India.

The data used in this analysis were collected in central region of Qassim, Saudi Arabia in the summer of 2015. These data consist of 15 male speakers from India, all of whom had been working in Saudi Arabia for between 2 and 13 years. The participants ranged in age range from 23 to 50 years old, and all had Malayalam as their first language. Two speakers of (Gulf) Arabic were also included in the sample as a control. The L1 Malayalam participants were divided into two groups based on their length of residency (LOR) in Saudi Arabia: a short stay group (those who stayed 5 years or less) and long stay group (those who stayed 6 years or more). To elicit the data, participants were recorded as they completed a picture task in which they had to identify 35 pictures that contained target marked sounds in initial position in a carrier phrase—as in [ha: ða \_\_\_\_\_] (‘this is a’ \_\_\_\_\_). The number of tokens analyzed was 525 (35 target words with the seven sounds x 15 participants). To determine to what extent their realization of the target segments were influenced by the local variety of Arabic (i.e., the lexifier language), we relied on acoustic cues (analyzed in Praat) to determine how to classify each segment. These cues included formant frequencies of the vowel following the emphatic sounds, friction duration, amplitude of frication noise, and Center of Gravity.

The results indicate that there is considerable inter-speaker variation among both groups across all consonants that have been investigated in this study. The only exception is the voiced pharyngeal fricative /ʕ/ which alternates only among people of the long LOR group. We argue that the alternation of these consonants reflects influence from the speakers’ L1 and that both groups tend to alternate by either producing the local variant of Arabic or replacing it with the counterpart in their L1. According to Al Jasser (2012), this pattern of alternation is a common feature in pidgins. We find that the degree of alternation is significantly affected by the length of residency in that there is a clear shift to the local norm among participants who have a longer LOR in Saudi Arabia.