



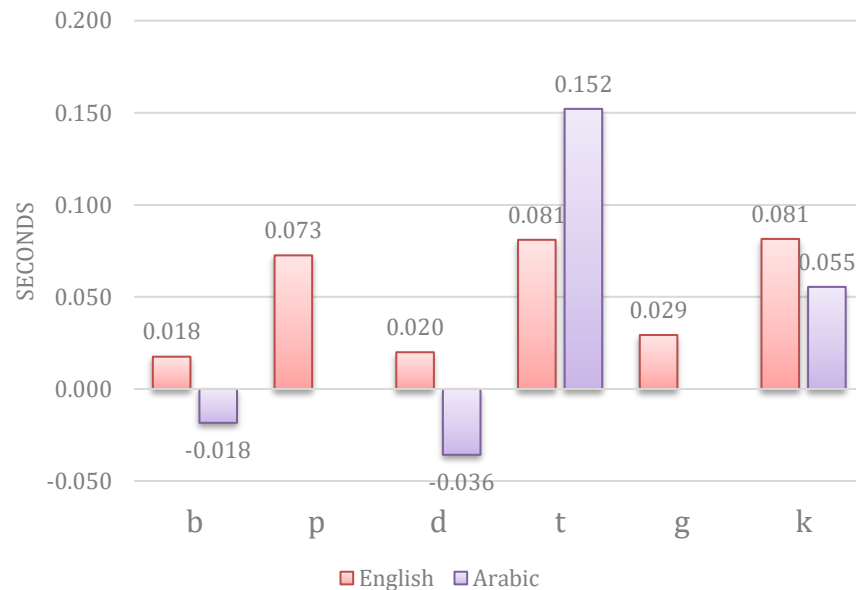
## VOICE ONSET TIME IN ARABIC AND ENGLISH STOP CONSONANTS

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This project examines the voice onset time (VOT) of stop consonants as produced by Arabic speakers in comparison to English speakers. In English, there exists a phonological contrast between voiced and voiceless pronunciations of bilabial, alveolar, and velar stop consonants. These pairs are /p/-/b/, /t/-/d/, and /k/-/g/ respectively. In Modern Standard Arabic (MSA), the voiceless and voiced versions of the alveolar stop, /t/-/d/, are contrastive, but the same does not apply to bilabial and velar stops. /b/ and /k/ are included in the phonological inventory of Arabic, but /p/ and /g/ are not. This leads to questions about pronunciation: Do the VOTs of /b/ and /k/ coincide with the VOTs of the /t/-/d/ contrasting pair according to voicing? Or conversely, do Arabic speakers' VOTs vary more liberally in these stops due to the absence of a contrastive voiceless equivalent?

Mean VOT Duration by Consonant and Native Language



It was found that Arabic and English speakers' pronunciations of VOT in stop consonants differed significantly as Arabic speakers often engage in prevoicing. The gaps in the Arabic stop consonant inventory, though, have no noticeable effect on the VOTs of affected consonants.

