

Quantitative analysis of language contact as a predictor of change in Palestinian Arabic

Uri Horesh (*Northwestern University*)

This study presents the complete analysis of a phonological variable in a project that has been in the making for several years, tracking language variation and change in two communities in Palestine: one in 1948 Palestine (aka “Israel”), where native speakers of Palestinian Arabic are also fluent in Modern Hebrew, and one in the West Bank, where language contact is virtually nonexistent.

In order to test the hypothesis that in the bilingual community lenition of the phonemic voiced pharyngeal fricative—the variable (ʕ)—is related to language contact, data from 20 speakers from that community and 6 from the non-bilingual community (henceforth the ‘control group’) were analyzed using Rbrul, including an array of social factor groups designed to quantify language contact.

The data have revealed that lenition occurs in a number of phonetic manifestations:

- Deletion—∅—e.g., /baʕde:n/ → [bade:n] ‘later’
- Compensatory lengthening, e.g., /baʕde:n/ → [ba:de:n] ‘later’
- Syllabic vocalization (the addition of a vowel *in a new syllable* to compensate for the loss of the pharyngeal), e.g., /baʕde:n/ → [ba.a.de:n] ‘later’;
/usbu:ʕ/ → [us.bu.a] ‘week’
- Glottalization: /tisʕa/ → [tisʔa] ‘nine’

The data were run in Rbrul in different ways, both with the dependent variable as a binary variable (lenition vs. non-lenition; deletion vs. non-deletion) and as a continuous variable, taking into account all forms of lenition (and the non-lenited form) as valid output options. Both the bilingual group alone and the bilingual+control groups combined were investigated quantitatively.

The results show that while lenition occurs in both the bilingual group and the control group, it is statistically more salient in the bilingual group. This is in line with our hypothesis, as Hebrew, which historically had pharyngeal consonants cognate to those of Arabic, had lost them in the course of its so-called revival, due to contact with Indo-European languages, which, of course, lack pharyngeals altogether.

Furthermore, within the bilingual group, in almost all of the different multivariate runs, the factor group that was the most statistically significant was “language of primary and secondary education.” Also salient is “age group,” another factor group indirectly reflecting language contact, as it is stratified according to political events in the history of Palestine that include its colonization by Hebrew-speaking settlers.