## Two phenomena in Cairene Arabic

These two separate phenomena in Cairene Arabic serve as evidence about syllable structure in this language. The goal of this exercise is to propose a (single consistent) criterion for dividing words into syllables that provides insight into both phenomena.

## I. Pharyngealization ("emphasis") spread

All Arabic dialects contain what are traditionally called "emphatic" sounds. Acoustically, they are characterized by lowered second formant, and articulatorily by a constriction in the pharyngeal cavity caused by retracted tongue root. Spreading of pharyngealization is illustrated by the following forms from Cairene Arabic.

- In these examples, capital letters indicate pharyngealized sounds. (This is a non-IPA convention, used here for convenience.)
- The underlying source of pharyngealization is the following sounds: /T D S Z L R/.

```
/bart/
                                                 'he spent the night'
                            [baːt]
/ba:T/
                            [BA:T]
                                                 'armpit'
/ti:n/
                            [ti:n]
                                                 'figs'
/Ti:n/
                            [TI:N]
                                                 'mud'
/faSlu/
                            [FASlu]
                                                 'his term'
/Ra:gil/
                            [RA:gil]
                                                 'man'
/Ragle:n/
                            [RAGle:n]
                                                 'two men'
/La:Tif/
                            [LA:TIF]
                                                 'pleasant' (masc.)
/LaTi:fa/
                                                 'pleasant' (fem.)
                            [LATI:fa]
/faDDal/
                            [FADDAL]
                                                 'he preferred'
                                                 'he preferred the boy'
/faDDal#ilwalad/
                            [FADDAlilwalad]
```

Propose an analysis to account for **how far pharyngealization spreads** in a word. Does your analysis explain why /Ragle:n/ 'two men' becomes [RAGle:n], *not* \*[RAGLE:N] or \*[RAgle:n]?

## II. Epenthesis

In Cairene Arabic, epenthesis (=insertion) of the vowel [i] occurs under certain conditions. Try to characterize the conditions that lead to epenthesis. (Note: The fact that the preceding sound happens to be [t] in all the examples is a coincidence.) **Do any insights from Part I help us understand this pattern?** 

```
/bint-na/
                             [bintina]
                                                   'our daughter'
/?ul-t-l-u/
                             [?ultilu]
                                                   'I said to him'
/katab-t-l-u/
                             [katabtilu]
                                                   'I wrote to him'
/katab-t-dars/
                             [katabtidars]
                                                   'you wrote a lesson' (final [s] = special exception)
/?ul-t-l-ha/
                             [?ultilha]
                                                   'I said to her'
/katab-t-l-ha/
                             [katabtilha]
                                                   'I wrote to her'
/katab-t-l-gawa:b/ →
                             [katabtilgawa:b]
                                                   'I wrote the letter'
```