

# The acquisition of final consonant clusters in Cairene Arabic

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## Abstract

Consonant clusters have long been known to pose problems for children in the early stages of acquisition. Most of the research on this topic has been based on Western languages (e.g., Goad & Rose 2004). Surprisingly little is known about the acquisition of clusters in non-Western languages such as Arabic (Dyson & Amayreh, 2007). Cairene Arabic (CA) offers a special window on this issue because CA has word-final CC clusters that can be of any sonority sequence combination (Kiparsky, 2002).

This paper reports the results from a phonological study of a child's acquisition of final consonant clusters in Cairene Arabic. The child of this study, MG (male, 2;8 years; months), was typically developing in all respects. Data were elicited in a spontaneous picture-naming task and in conversation using a probe list designed to focus on word-final clusters uttered in isolation or at the end of a phrase. The child's productions were phonetically transcribed by a trained listener.

Results show that the child generally replaced final clusters with a geminate of the final consonant in the cluster, regardless of the sonority slope of the cluster in the input (see illustrative data in (1a-c)). However, as the forms in (2) show, when the final consonant of the target cluster was a pharyngeal, the initial consonant of the cluster was instead geminated. Additionally, when a pharyngeal was the first member of the target cluster, a heterorganic cluster emerged, as seen in (3).

### **(1) Final consonant of cluster geminates independent of sonority profile**

#### **a. Falling sonority**

/bint/ > [bitt] 'girl'

#### **b. Level sonority**

/mi[tʰ / > [ʔitt] 'comb'

#### **c. Rising sonority**

/ʔism/ > [ʔimm] 'name'

### **(2) Geminate pharyngeals disallowed**

/ʔamħ/ > [ʔamm] 'wheat'

/malħ/ > [ʔall] 'salt'

### **(3) Heterorganic clusters permitted when pharyngeal is the initial member of cluster**

/baħr/ > [baħl] 'sea'

/taħt/ > [taħt] 'under'

An optimality theoretic analysis of these facts is proposed which makes use of constraints such as MAX MORA, \*COMPLEXCODA, ANCHOR RIGHT and others in a relative ranking that yields the child's winning output candidates.

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## References

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