The Acquisition of Word Initial Consonant Clusters in Jatt Arabic

Arabic dialects that have word initial consonant clusters serve as a fruitful ground for studying the acquisition of clusters, due to their prolific inventory of clusters in terms of sonority profile. While all languages with clusters allow sonority rise (English), and fewer allow rise and plateau (Hebrew), very few are like Palestinian Arabic, which allows all three sonority profiles, including the most marked sonority fall (\textit{tra:b} ‘soil’ $>$ \textit{t\textsuperscript{b}u:l} ‘drums’ $>$ \textit{rt\textsuperscript{b}u:bi} ‘wetness’). In addition, while most languages use epenthesis to simplify clusters in borrowed words, Palestinian Arabic uses prothesis (\textit{glida} ‘ice cream’ $\rightarrow$ \textit{iglida}).

Given these properties, I address the following questions:

a. What is the role of universal principles and language-specific properties in the acquisition of word initial consonant clusters in Jatt Arabic?

b. What are the strategies children use to simplify word initial clusters?

The relevant universal principles are the following:


b. Syllable Contact Law (SCL) – evaluates the sonority profile of coda-onset sequence: sonority falls from coda to the following onset (Murray and Vennemann 1983, Vennemann 1988).

c. The Sonority Dispersion principle (SDP) – enhances both (a) and (b): the greater the sonority distance the better (Clement 1990, 1992).

The data was obtained from 40 typically-developing monolingual children from Jatt, equally divided into 5 age groups: 2;06-3;00, 3;01-3;06, 3;07-4;00, 4;01-4;06, 4;07-5;00. The data was collected via picture naming task that included 27 mono or disyllabic words with initial consonant clusters.

The distribution of the simplification strategies reveals a strong language-specific effect.

a. While C-deletion is the most common simplification strategy cross-linguistically (e.g. English \textit{plet} ‘plate’ $\rightarrow$ \textit{pett}), it was relatively rare among the Arabic acquiring children (3%-10.5%).

b. While in most languages the strategy that preserves the two consonants in a cluster is epenthesis (e.g. English \textit{plet} ‘plate’ $\rightarrow$ \textit{paleit}), in our data the majority (28.5%-37%) was prothesis (e.g. \textit{msak\textsuperscript{a}} $\rightarrow$ \textit{imsak\textsuperscript{a} ‘cold FM,SG’}).

Despite these language-specific effects, and in particular the prothesis strategy that is found only when the ambient language’s phonology has prothesis, universal principles still play a role:

a. Clusters with sonority rise were acquired before other clusters, i.e. the better the sonority profile the earlier the acquisition.

b. C deletion depends on the sonority profile of the cluster – the less sonorous segment survives.

c. Prothesis was more common with sonority fall due to the resulting syllable contact.

The study thus supports the claim that in addition to the undisputable language-specific effects, children resort to universal principles in the course of language development.

The lecture will be delivered in Hebrew • 

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