The acquisition of consonant clusters by Greek-speaking children

Eirini Sanoudaki
Bangor University
e.sanoudaki@bangor.ac.uk

Research on phonological acquisition has shown that structural issues are reflected in children’s phonological acquisition, in that children tend to produce simpler structures before more complex ones. However, consonant clusters are notoriously peculiar in this respect: word initial clusters of non-rising (or falling) sonority (e.g. st, sp) are acquired before regular onset clusters (i.e. clusters of rising sonority, TR, e.g. tr, pl) by some children, and after by others (see Barlow 2001). This makes a successful comparison of the complexity/markedness of the two cluster types particularly difficult. Several proposals intending to tackle the problem have been put forward (e.g. Barlow 1997, Fikkert 1994, Lleó & Prinz 1997).

The only type of word initial clusters of non-rising sonority that has been examined extensively is s+obstruent clusters (sT), by virtue of being attested in well-studied languages such as English. However, other languages, such as Greek, allow a number of other word initial clusters of non-rising sonority (TT, obstruent-obstruent clusters, e.g. ft, xt).

In this study, I compare the acquisition of clusters of non-rising sonority (TT) to that of clusters of rising sonority (TR) in word initial and word medial position. Experimental production data were collected from fifty nine monolingual Greek children (aged 2;03-5;00, mean age 3;08) using a non-word repetition task. The results show a clear tendency for word initial TR clusters to be produced before word initial TT clusters. A comparison of the initial clusters with their word medial counterparts also shows differential behaviour. Specifically, word initial TT was acquired after word medial TT, while no such difference was found in TR acquisition.

These results are consistent with the marked status of word initial clusters of non-rising sonority that is generally accepted in phonological research. However, the findings regarding TT clusters are not in line with findings from other languages regarding sT clusters. This is particularly important, since it constitutes evidence for a differentiation between sT and the remaining clusters of non-rising sonority, despite evidence to the contrary from adult phonology (e.g. Seigneur-Froli 2006, Steriade 1982). We are thus faced with an apparent paradox: on the one hand, there is developmental evidence that the two cluster types are different in some way crucial to first language acquisition, and on the other hand, phonological processes in adult language create an identical structural profile of the two cluster types.

In light of such conflicting evidence, I explore a parametric model for the acquisition of consonant clusters which employs the subset principle, a condition widely assumed to be necessary for learnability. The model explains the developmental data whilst at the same time it covers the adult language phenomena. Specifically, the marked settings of a grammar that allows initial TT clusters form a superset of the marked settings required for initial sT clusters, which explains the developmental data, while the behaviour of the two cluster types in adult language is a consequence of the resulting representations having identical structure in grammars that allow them both.
References


