**Acquisition of Morphologically and Phonologically Conditioned Vowel Length in Albanian**

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Albanian, an understudied language, may offer new insights into language acquisition due to its complex morpho-phonological system [1,2]. One of Albanian's two major dialects, Gheg, contains at least two types of vowel lengthening rules [3,4,5,6] that children need to learn: morphologically (Type 1) and phonologically (Type 2) sensitive lengthening. Type 1 characterizes indefinite nouns, as opposed to definite nouns (e.g. /ve:z/ vs. /vez/ 'some eggs/the eggs'), and is the most frequent type of lengthening in Gheg; Type 2 occurs preceding liquid consonants and in final open syllables (e.g. /mi:/ vs. /mit/ 'mouse/myth') [6,7,8].

Statistical frequency has been shown to be one of the main predictors of ease and speed of acquisition of morpho-phonological patterns from a variety of theoretical perspectives [9,10,11,12]. On the other hand, there is a well-documented tendency for phonological rules to be acquired earlier than morphological ones [13,14,15,16], even if they are less frequent. In this context, our aim is to establish whether children benefit from more frequently occurring morphological (Type 1) or less frequently occurring phonological factors (Type 2) during acquisition. We addressed this question with 6-7 year old children, because this is the earliest age group that is likely to show some phonetic proficiency in communicating such factors in morpho-phonologically complex languages like Albanian (see [17] for Hungarian; [18] for Russian).

Fifty-nine monolingual native speakers of Albanian participated in a picture naming task: 22 adults (20 women; aged 38-74 years) and 37 children (20 girls; aged 6-7 years). They were screened for dialect background and language impairment and were recorded in schools in Albania. The participants were asked to name 18 images of relevant cultural objects presented on a laptop monitor. The instructions were to say the word as they would in their local, home environment. Each image was presented four times in a randomized and counterbalanced order, and each corresponded to a monosyllabic word featuring one of six stressed vowels, /i,y,u,e,o,a/. Seven words were of "Type 1"; six of "Type 2"; five were "Control" words. The acoustic analysis was performed in EMU-SDMS [19].

Figure 1 compares vowel duration in the three types of words produced by children and adults. Firstly, 6-7 year old Albanian-speaking children's vowels are significantly longer than those of adults ($F$[1, 68.71]=10.25, $p$<0.01); this has been linked to children having slower articulations than adults until adolescence [20,21,22]. Secondly, our results show that Type 1 and Type 2 vowels are significantly longer than Control vowels ($t$[15.9]=3.22, $p$<0.05; $t$[16.1]=2.88, $p$<0.05 respectively), but not significantly different from one another ($t$[15.6]=0.24, $p$=0.96). Thirdly and crucially, there is no significant interaction between the group of speakers (adults/children) and the type of words ($F$[2, 23.43]=0.82, $p$=0.44). Taken together, these results seem to suggest that less frequent phonological and more frequent morphological factors are learned with equal proficiency. It is evident that children have mastered both types of lengthening, given that they have produced the same length patterns as adults.

482 words

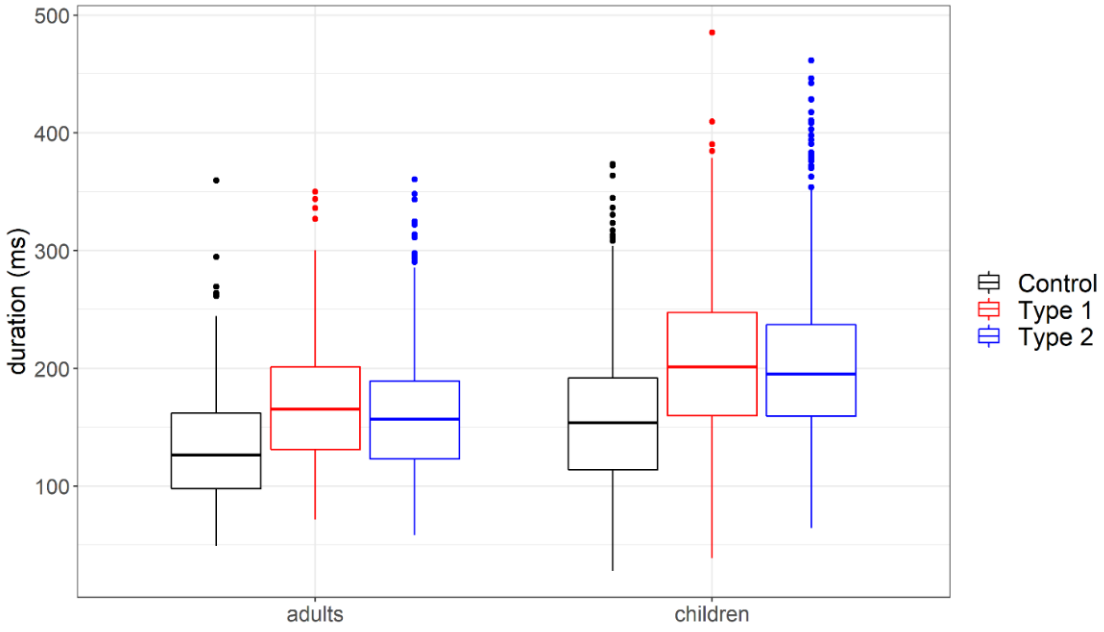


**Figure 1. Duration of vowels in Control, Type 1 and Type 2 words in adult and child speakers**

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