

Stress assignment in Greek: Evidence from children and adults

This study investigates how school-age children assign stress compared to adults in a lexical stress system depending on word length and inflectional endings. Unlike languages with purely phonological stress (Hayes 1995), languages such as Greek (Drachman & Malikouti–Drachman 1999) exhibit lexically determined stress. In such languages, stress placement is unpredictable and can fall on any of the last three syllables of a word, as seen in examples like ['pi.na.kas] ‘writing board’, [ka.'no.nas] ‘rule’, [ana'nas] ‘pineapple’. Studies using pseudonouns have shown that word size and word endings indicating noun class influence adult speakers’ stress placement decisions (XXX 2018 for Greek). Specifically, speakers show a clear preference for antepenultimate (APU) stress over other patterns in trisyllabic nouns ending in *-os* and *-o*, but favor penultimate (PU) stress in nouns ending in *-a*. These findings are supported by stress distributions observed in lexical resources (XXX 2018), such as the 2002 *Reverse Dictionary* and an annotated, abridged version of *Clean* (Protopapas et al. 2012).

Research on early language development shows that young children favor PU stress, under the influence of the unmarked trochaic foot (Hayes 1995). Although this tendency is well-documented in very young children (Fikkert 1994; Kehoe 1998), there is still limited evidence on how school-aged Greek children assign stress in terms of word size and whether they show deviations from adults across different suffixes. Our study addresses this issue by exploring two key questions: Q1: Are there any differences between children’s and adults’ choices in stress assignment in Greek? Q2: What is the role of word length and inflectional endings?

We administered a stress elicitation reading task to 105 monolingual Greek-speaking typically developing school-aged children (aged 84-144 months) and 105 monolingual adults (aged 18;10-62;5 y.o.). The task consisted of 126 di- and trisyllabic pseudonouns with real noun inflectional suffixes (*-a*, *-iF*, *-iN*, *-is*, *-ma*, *-o*, *-os*), controlled for effects of lexicostatistical frequency (Coleman & Pierrehumbert 1997) and lexical analogy (Protopapas et al. 2006) using tools like *NumTool* (Protopapas et al. 2012).

In disyllabic nouns (Fig. 1), mixed-effects logistic regression analyses in R (R Development Core Team 2017) with suffix and group as fixed-effects, and subject and item as random effects revealed that both children and adults assign PU over U stress patterns across noun classes. However, for suffixes *-iN*, *-is*, and *-os*, children assign ultimate (U) stress significantly less than adults do (though this difference was only marginal for suffix *-os*). This between-group quantitative difference reflects developmental variation in stress assignment patterns; that is, children retain the default PU stress pattern significantly more compared to adults.

In trisyllabic nouns (Fig. 2), APU and PU are the dominant stress patterns, with U stress occurring rarely. As opposed to adults, who assign APU significantly more than PU with *-os*, *-o*, and *-ma*, children significantly assign PU over APU with *-os* and *-o* ($p < .05$) and show equal occurrence for both stress patterns with *-ma*. Thus, there is a clear qualitative difference between children and adults, as only adults strongly favor APU stress with these suffixes. Both groups assign U stress significantly less than APU and PU, confirming that U stress is generally avoided. Adults, however, demonstrate a stronger awareness of this avoidance.

To conclude, children consistently prefer PU stress in both di- and tri-syllabic nouns across noun classes. What is particularly noteworthy is that despite the qualitative difference between children and adults (i.e., only adults assign APU with *-ma*, *-o*, and *-os* suffixes), children exhibit attenuated (but still higher) PU preferences compared to the rest of the suffixes, as if they haven’t yet discovered APU stress and need more time to do so. This preference likely emerges because APU stress is lexically associated with specific suffixes, revealing the lexical nature of stress in the language (Markopoulos et al. 2024). Moreover, the quantitative difference observed in disyllabic nouns suggests that children feel less comfortable selecting marked U stress, which may result either from an iambic foot (e.g., Fikkert 1994) or a degenerate trochee.

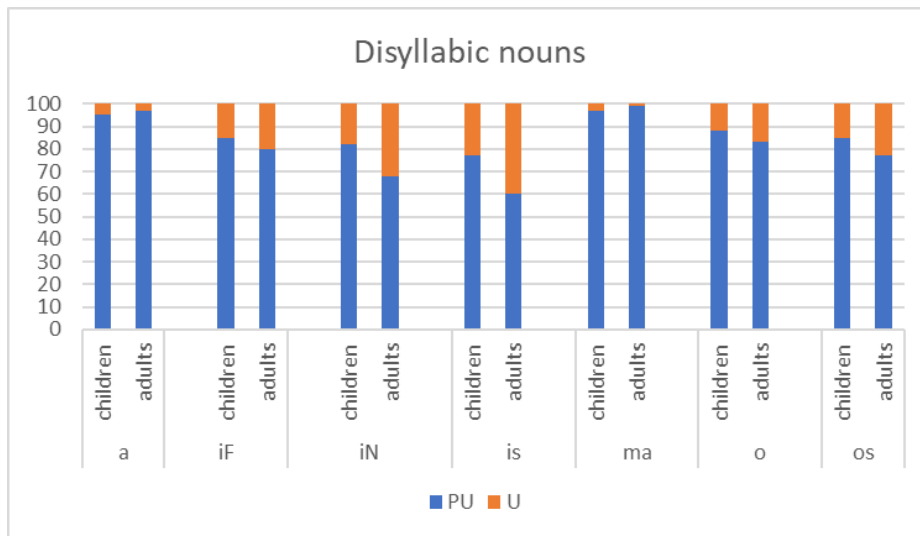


Fig. 1. Percentages (%) of stress patterns (PU, U) in disyllabic nouns in children and adults

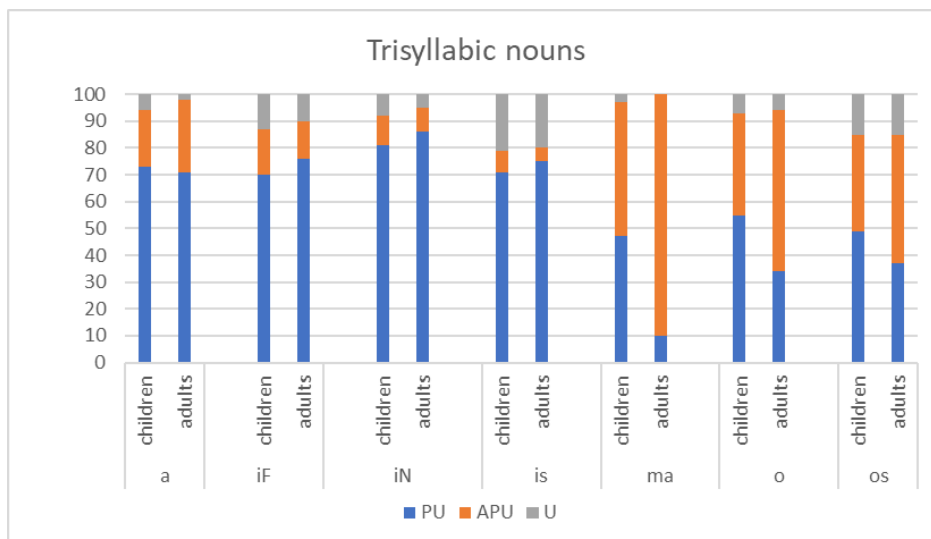


Fig. 2. Percentages (%) of stress patterns (PU, APU, U) in trisyllabic nouns in children and adults

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