Phrasal prominence location is influenced by IP boundary location in the absence of stress clash

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Speakers can place prominent syllables at the onset of prosodic constituents to demarcate prosodic domain edges (Halle & Vergnaud, 1987; Halle & Idsardi, 1995). The aim of this paper is to test whether the location of phrasal prominence in double-stressed words like *thirteen, mundane, Maltese*, usually associated with stress clash, can be influenced by the location of Intonational Phrase (IP) boundaries alone. The paper reports on a simple manipulation of prosodic boundary strength before and after double stressed target words uttered in contexts completely free of stress clash. Fourteen targets and 26 tri-syllabic filler items were produced in two conditions exemplified in (1) below by 12 speakers of English.

(1) a. Isolated $_{IP}$ [$_{\omega}$ [***Maltese***] $_{\omega}$] $_{IP}$
b. Embedded $_{IP}$ [*Say* $_{\omega}$ [***Maltese***] $_{\omega}$ *again*] $_{IP}$

In the Isolated condition (1.a), 'Early' prominence (i.e., phrasal prominence placed on the initial syllable, e.g., *Mal-*) should be more likely because the target word is utterance- and phrase-initial and the left-edge prosodic boundary is stronger. In the Embedded condition (1.b), phrasal prominence should be less attracted to the weaker boundary immediately preceding the target. Accordingly, prominence should fall on the second syllable of the target, (e.g., *-tese*) more often. Three expert linguists listened to the stimuli and reported their judgements of the location of the main lexical prominence in each target (918 judgements). Early perceived prominence rates (*Early rates*, the percentage of early prominence tokens in each condition), and *Early scores* consisting of the sum (0 to 3) of 'Early' prominence judgements for each token were calculated. In the Embedded condition 96% of the tokens were perceived with 'Late' phrasal prominence on the second syllable of the target, e.g., *-teen* in *thirteen,* while in the Isolated condition less than half of the targets were judged as Late-prominent (cf. Figure 1). The Early scores were also significantly higher in the Isolated condition relative to the Embedded condition, indicating that the stronger left-edge boundary increased the incidence of 'Early' prominence in the Isolated condition. Overall, the results suggest that doubly stressed words show stress shifting to demarcate the left IP edge. Because this study uses contexts completely free of stress clash, its results provide evidence that other factors (than stress clash), namely the marking of domain onsets (Halle & Vergnaud, 1987; Halle & Idsardi, 1995), can influence the movement of prominence location.

Keywords:

Prosodic boundary strength, Intonational Phrase (IP) boundary, Early prominence, Stress shift, Prosodic prominence, Prominence structure, Speech prosody, Prosodic constituency, Prosodic domain onsets, Domain edges, Double stressed words, Trochaic stress, Iambic stress, Assignment of prominence, Prominence location, Stress clash

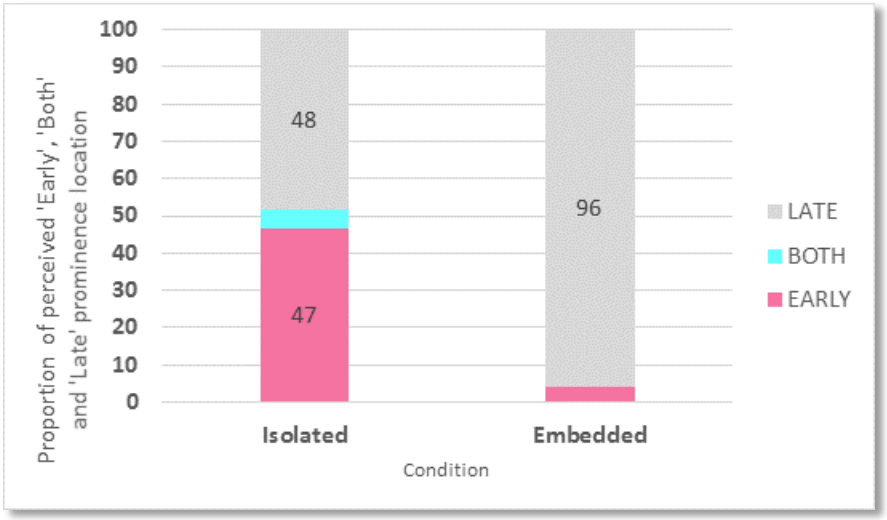

Figure 1: Distribution of the location of perceived prominence in the target, in the Isolated e.g., *Maltese* and Embedded condition e.g., *Say Maltese again* for the 282 token pairs where at least two judges agree on prominence location.

References

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