

## Prominence is relative in two different ways (Abstract)

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Attempts to understand the phonetic basis of stress or prominence in European languages go back at least to the 19th century, and there is still no general agreement on what makes a word or syllable “stand out” in the stream of speech. Decades of theorising about the problem, however, have led many researchers to treat prominence as consisting of two distinct phenomena. The older and more straightforward version of this approach lies in making a sharp distinction between word stress and phrasal stress: some phonetic properties of prominent words are attributed to word stress, and others to phrasal stress. The other version of this approach, less sharply dichotomous, focuses on the phonetic difference between intonation (in the sense of “pitch accents” and other phrase-level pitch patterns) from cues such as greater duration and intensity, based on the fact – known since Fry’s early work – that experimental manipulations of pitch affect prominence judgements in qualitatively different ways from manipulations of duration and intensity.

I propose a third version of the dichotomy. I suggest that “prominence” is such an informal notion that it has blinded us to the fact that “standing out” can be defined in terms of two quite distinct types of relation between a word or syllable and its context. I will tentatively refer to these as “psychophysical prominence” and “structural prominence”, and will suggest that the true nature of the dichotomy is between primarily *local* and *non-local* prominence relations: a syllable can be prominent because it is longer or louder than one or both of its immediate neighbours, but it can also be prominent by virtue of its place in a prosodic structure that can span longer stretches of speech. Such a distinction is well-motivated in music perception, where we know that the same phonetic material can be perceived in quite different ways depending on its structural interpretation.

While this local/non-local version clearly addresses many of the same puzzles as the two more conventional versions of the dichotomy, it does not attempt to anchor the analysis either in grammatical terms (word vs. phrase) or in phonetic terms (F0 vs. duration, intensity, etc.), but rather in cognitive terms. This idea is supported by findings that (1) listeners can be induced to shift between local and non-local judgements of relative prominence, and that (2) phonetically very similar intonation patterns in different languages can induce conflicting relative prominence judgements. I will also discuss various paradoxes involving the notion of “pitch accent” that are easily resolved if we do not identify phrase-level prominence with intonation but rather with position in metrical structure.

Advance reading: D. R. Ladd and A. Arvaniti (2023). Prosodic prominence across languages. *Annual Review of Linguistics* vol. 9, 171-193. Online at <https://www.annualreviews.org/doi/abs/10.1146/annurev-linguistics-031120-101954>

Optional further background reading: D. R. Ladd (2008). *Intonational Phonology* (2nd ed.), chapter 7, pp. 254-273. Cambridge University Press.