

Accounting for context and variability in a prominence-based model of discourse meaning

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Prosody conveys discourse meaning through the encoding of focus and information status, but these factors alone are not sufficient to model observed variation in the production and comprehension of prosody (see Cole 2015), especially for prominence. We propose a comprehensive, predictive model of discourse prominence and its prosodic realization, where multiple factors incrementally determine the prominence value of each word in an utterance (Fig.1). Categorical and gradient factors are expressed by independent prominence scales, either lexically determined (Part-of-Speech, semantic weight) or based on the discourse context of the utterance in which the word occurs (givenness and pragmatic focus). Prominence values from these scales combine with syntactic structure in shaping the prosodic structure of an utterance – locating phrasal juncture and nuclear accents. Within each resulting intonation phrase, the prominence relations between words are spelled out, e.g. in a metrical grid. Finally, the adjusted prominence values are mapped onto accent types and gradient phonetic parameters. This last step is needed to account for the probabilistic nature of accent type distribution as well as speaker-specific variation.

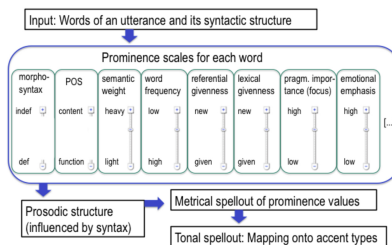


Figure 1: Sketch of a comprehensive prominence-based model of discourse meaning (for West Germanic languages)

References: • Cole, J. (2015): Prosody in context. *Language, Cognition and Neuroscience* 30(1-2), 1–31.