The Department of Linguistics
is pleased to present

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speaking on

Word frequency and predictability effects in reading: Some outstanding puzzles

Friday, December 4, 2020
1:20 PM (PST) via Zoom
Zoom Information: Will be emailed on Thursday, December 3, 2020

Abstract:
A word's context-independent frequency and its context-dependent predictability both influence eye fixation durations in reading. In this talk I'll discuss recent work investigating some questions about relationship between these two effects. One question is why manipulations of the two variables demonstrate strictly additive effects on fixation duration measures. A possibility is that they influence separate processing stages; predictability may facilitate early visual and orthographic processing, while frequency influences a later stage of lexical retrieval. If so, the two effects should show different patterns of interaction with effects of stimulus degradation, e.g., visual contrast. However, two large experiments show that frequency and predictability demonstrate similar patterns of near additivity with effects of visual contrast and font difficulty, providing no support for the two-stage hypothesis. A second question is whether there is a correlation, at the level of individual readers, between the size of frequency and predictability effects. Evaluating correlations between by-subject slopes in Bayesian mixed-effects models reveals that the answer is scale-dependent: Effects of the two variables on raw gaze duration show a positive correlation, but effects on log gaze duration do not. This is probably because the correlation is due primarily to a relationship between reading speed and effect size, which is neutralized by the log transformation. I'll discuss how these results constrain our understanding of how the two variables influence lexical processing.