Cognitive psychologists have used chronometric data from tasks such as lexical decision and speeded pronunciation to construct detailed models of how written words are recognized. However, these tasks involve reading words in isolation, and it is clear that context does exert a robust influence on word reading time: As a word’s predictability increases, reading time decreases monotonically. In this talk, I will discuss our ongoing attempts to answer the question of exactly what aspects or stages of lexical processing are facilitated by predictability. One approach to this problem involves exploring potential interactions in the eye movement record between predictability and variables such as word frequency, stimulus quality, and parafoveal preview. A second approach involves modeling the influence of predictability and other variables on the shape of fixation duration distributions. This work converges on the conclusion that predictability influences eye movements in reading primarily by facilitating very early stages of visual or orthographic processing, rather than later stages of lexical or conceptual access. We also conclude, however, that modulation of the N400 component by predictability must reflect a distinct, later effect.