Todd M. Gureckis

Associate Professor

Department of Psychology

New York University

**Title:** Understanding the decision to learn

**Abstract:** Any complete theory of human learning must explain not only what is gleaned from the information we experience, but also the capacity for our choices and actions to expose that information.  Interestingly, many experimental studies of learning and memory emphasize "passive" learning by limiting participants’ control over the information they experience at each point in time. In this talk, I will discuss recent work in my lab exploring how people gather information in "self-directed" learning environments - those where the learner is in control of what to learn about and when to learn it.  The primary aim of this research is to characterize the information sampling strategy that participants use to reduce their uncertainty, and to examine how self-directed learning influences acquisition of new knowledge.  The evidence presented in the talk suggests three key take-home points:  1.) people can learn faster when they can select and sequence learning episodes themselves, but this depends, in a dynamic way, on the structure of the to-be-learned concepts and the space of hypotheses that the learner considers 2.) people select information gathering strategies in an adaptive fashion which trades off their expected performance and implied cognitive effort and 3.) self-directed learning helps to enhance memory by helping learners coordinate stimulus presentation with their current preparatory or attentional state.  Implications of this work for education, instructional design, as well as the cognitive science of learning will be entertained.