What Individual Differences Can Teach Us about Cognitive Training and Transfer

Guest Lecture by Benjamin Katz
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Abstract: Despite the growing body of extant cognitive training research, there is little consensus regarding the efficacy of cognitive training programs, and furthermore, the underlying mechanisms of training that support transfer remain poorly understood. In this presentation, I discuss examples from my own research that may shed light on these issues, methodological considerations more generally, and historical examples that may prove highly relevant to current research.

Bio: Psychologists often refer to "executive function" as an umbrella term that includes our abilities to remember and work with novel information, to selectively attend to relevant stimuli, and to inhibit responses when they aren't appropriate. These skills are closely associated with learning and success in academics, workplace performance, and activities of daily living, but not everyone starts off at the same level. Furthermore, individuals with certain conditions, such as ADHD, may struggle with these skills. My research focuses on the development of these abilities and the extent to which they may be improved throughout the lifespan. We know that there is promising evidence that it may be possible to augment certain skills through experience and intervention. What isn't known is the extent that improving executive function leads to general improvements in other real-life outcomes, such as performance in school or work. I primarily use game-based cognitive training to address these questions, applying my previous work as a game designer to the problems of educational and cognitive psychology. In my work with primary advisors Dr. Priti Shah and Dr. John Jonides at the University of Michigan, I conduct studies at home and in schools, as well as in laboratory settings and with large datasets. I also investigate non-invasive brain stimulation (transcranial direct current stimulation) as another way we might augment the skills that support learning. I am completing a PhD in Education and Psychology at the University of Michigan, Ann Arbor, where I earned a MS in Psychology. My BA degree is in psychology and film studies from Columbia College, Columbia University. http://www.benkatz.me/index.html