The Effects of Information Processing on Verbal Episodic Learning

Type of Project: Exploratory Behavioral Research
Methods: Neuropsychology, Cognitive Neuroscience, Imaging (fMRI)
Status: Internal Funds Secured to Start Behavioral Testing in Initial Control Populations; $100,000 Sought to Test Patient Populations and to Initiate fMRI Phase
Study Period: January 1, 2007 – open ended
University of Utah Collaborative Units: Psychology Department (Behavioral and Social Sciences)
Investigators: James A. Levy, Ph.D., Jason M. Watson, Ph.D.

Project Summary:

Although we know that memory impairment is the cardinal cognitive symptom in Alzheimer’s disease (AD), we know comparatively less about how it is lost in early AD. This project aims to look experimentally at how individual differences in information processing (such as attention) affect the learning of new information. We hypothesize that there were be a range of differences in memory processing very early in AD, including improved learning and worsened learning. Moreover, we expect that improvement and worsening will occur in both control populations and those with mild memory disorders. Information processing will be examined in a systematic manner based on selective brain processing, which will be verified with functional magnetic resonance imaging (fMRI).

Potential Benefits:

If successful, this approach could help identify subgroups of individuals very early in the course of AD for targeted study and treatment interventions.