The School of Psychology

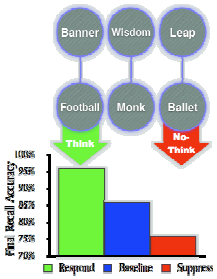
University of St Andrews

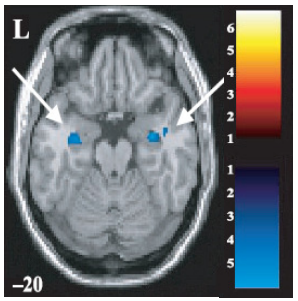
SINAPSE at St. Andrews

SINAPSE
Scottish Imaging Network - A Platform for Scientific Excellence

Memory control lab

Research: Memory and attention, mechanisms of executive control in memory tasks. Retrieval-induced forgetting as a window into inhibitory control processes during retrieval. Exploration of voluntary control of inhibition and motivated forgetting.





•Think/No-Think (TNT) Paradigm: Intentionally preventing memories from coming to mind:

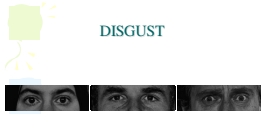
•Reduces later accessibility to those memories

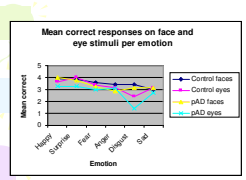
•Results in a hippocampus-specific deactivation

Anderson, et al. (2004). Neural systems underlying the suppression of unwanted memories. Nature, 303, 232-235.

Neuropsychology

Research: Neuropsychological deficits associated with Alzheimer's disease and basal ganglia disorders (Parkinson's and Huntington's disease). Neuropsychiatric disorders (Obsessive Compulsive Disorder and Schizophrenia). Neural substrate of facial expression recognition, particularly fear and disgust. Impact of dementia on communication and emotion processing.





Astell, Breen, Hockey & Ellis. (2003). Emotion recognition in Alzheimer's disease. Presented at Society for Neuroscience

Perception Lab

Research: recognition of facial attributes and understanding actions of others. Facial cues of attractiveness and health (Figure 1.) Decoding emotional expression and deception; role of expectations and cross modal integration in understanding actions. Using fMRI to determine the extent to which different attention cues rely on the same, or overlapping, or separate neural networks (Figure 2).

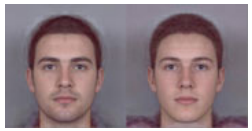


Figure 1.Exploring facial cues

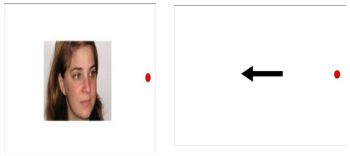


Figure 2. Different attention cues

EEG lab

Research: Attention, focusing on cognitive interference and conflict control. Sequential effects in speeded response time tasks. Functional organisation of cortical motor structures involved in planning and control of voluntary movements. Development of new methods of analysis for electrophysiological research