

Psychology Colloquium/ Advanced Seminar in Psychology

Confirmation of Candidature Colloquium

Saccadic eye-movements as a measure of cognitive functioning in patients with Alzheimer's disease

Ms Belinda Smith
Discipline of Psychology
School of Health and Human Sciences
Southern Cross University

1:30pm, Friday, 13th May 2011

Lecture Hall P158 (Lismore campus)*

Video-linked to Lecture Hall D350 (Coffs Harbour campus) and to
A223 (Tweed Heads Gold Coast Riverside campus)

All welcome

About the colloquium. Dementia is considered to be the epidemic of the 21st century and is predicted to become the leading cause of death by 2060. The most common type of dementia, accounting for 50 to 75% of cases, is Alzheimer's disease (AD). The specificity of current diagnostic measures in AD is 80% to 90% of cases (Kensinger, 2009), leading to frequent misdiagnosis (McLoughlin & Levy, 1996). Therefore finding measures that are more sensitive to the symptoms of AD is crucial. Eye-movement paradigms may provide such a tool as they offer a precise, non-invasive, and language-free measure of the cognitive control of behaviour, including attention, inhibition, and working memory (Hutton, 2008). Eye movement performance in people diagnosed with AD has been demonstrated to be impaired on an antisaccade task, which requires effortful inhibition of visual stimuli (Boxer et al., 2006), and on a memory-guided saccade task (Abel & Douglas, 2007). Conversely, performance on the prosaccade, a purely stimulus driven task, has been found to be spared (Mosimann, et al., 2005). Despite the robustness of these findings it is unclear whether poor antisaccade performance is due to concomitant deficits in other executive functions. To address this, many studies have found moderate correlations between eye-movement performance and performance on cognitive screening instruments such as the Mini-Mental State Examination (MMSE). However few studies have included more comprehensive neuropsychological assessments. Given this, the aims of the proposed research are (i) to investigate if saccadic eye movements are a more-sensitive and objective measure of cognitive impairment than neuropsychological assessment tools, (ii) to investigate performance on an oculomotor capture task, which has not yet been investigated in AD, and (iii) to enhance empirical understanding of the clinical utility of saccadic eye-movement tasks in AD.

About the speaker. Ms Smith completed an SCU Bachelor of Psychology with first class Honours in 2009. She is currently a PhD student and casual academic in Psychology, and a Brief Intervention Counsellor. Her primary interests are in geropsychology, clinical neuroscience, and solution-focused therapy.

About the speaker's host. Dr Alison Bowling alison.bowling@scu.edu.au

About Psychology Colloquia. See www.scu.edu.au/psychologycolloquia

*** Note unusual place for this colloquium.**