ABSTRACT

THESIS: Multisensory Integration Processes in People With Attention Deficits

STUDENT: Shannon Doody

DEGREE: Master of Arts

COLLEGE: Sciences and Humanities

DATE: May, 2013

PAGES: 36

This study looked at facilitation, or improvement, of behavioral responses, such as quicker reaction times and improved accuracy in participants with subclinical attention deficits and a control group. Studies have looked at auditory and somatosensory (i.e., touch) stimuli and found that when presented simultaneously there were both neuronal benefits (Simon-Dack & Teder-Salejarvi, 2008) and behavioral benefits (Sperdin, Cappe, Foxe & Murray, 2009). The ability to attend to the stimulus is necessary for multisensory facilitation and when attention is not paid to both sensory inputs multisensory facilitation may not occur (Talsma & Woldorff, 2007). This study used a sustained-attention target task to compare how people with subclinical attention deficits and controls performing a multisensory integration task. Both populations performed faster in the multisensory condition than in the unisensory condition, but controls also saw an increase twice that of the increase for participants with subclinical attention deficits. This suggests a trend towards true behavioral facilitation in controls that would support the neuronal benefits found by past studies (Simon-Dack and Teder-Salejarvi, 2008). On the other hand, not seeing this trend in participants with subclinical attention deficits would suggest that even small attention deficits can interfere with multisensory facilitation.