Weekly Colloquium

Tuesday, 3/27/2018, 12:30pm, Billings Building – Rosedale Conference Room

Title of talk: "Understanding Aphasia"

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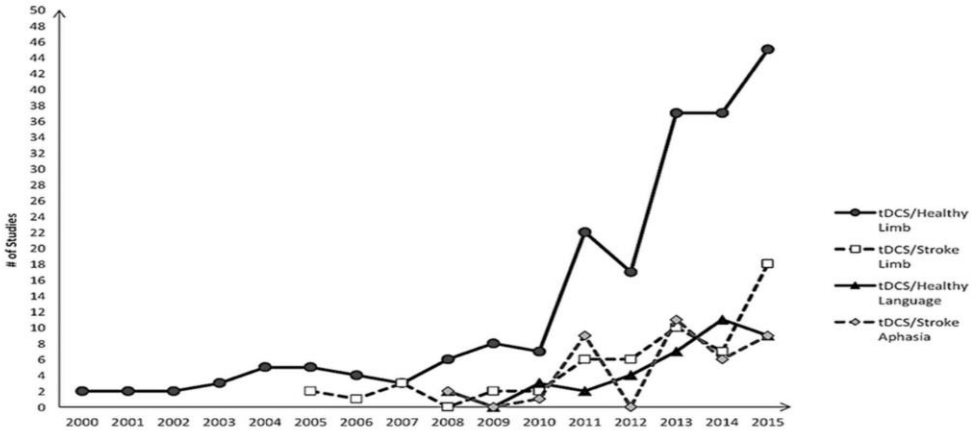
Abstract:
Aphasia is a debilitating language disorder that affects nearly 40% of stroke survivors. It may also occur due to other forms of neurological injury or illness. Aphasia is more common that Parkinson's disease or multiple sclerosis; yet, according to the National Aphasia Association (2016), most people in the wider community have never heard of it. Aphasia is often misunderstood and receives scant public attention. I will be discussing what is known about aphasia, as well as common misconceptions about the disorder. I will present a brief introduction to cortical language representation and will note how our understanding of language in the brain has evolved from a modular view, to one of dual stream networks involving white matter and subcortical structures, operating in alliance with many other brain functions. I will present work completed in collaboration with the Neuromodulation and Human Motor Control Laboratory at the Burke Medical Research Institute under the direction of Dr. Dylan Edwards. Contemporary evidence-based aphasia therapies will also be discussed. I will look toward future directions in aphasia research, noting a unique synergy between upper-limb and aphasia recovery in stroke. I will suggest that the somatotopic, developmental and behavioral interrelationships between motor-limb and speech-language functions may signal a path toward novel combinatorial therapies for aphasia.

Timeline of transcranial direct current stimulation (tDCS) limb vs language studies.



Susan Wortman-Jutt, and Dylan J. Edwards Stroke. 2017;48:820-826

American Heart Association.

tDCS motor-limb vs. language studies. From: Wortman-Jutt, S. and Edwards, D. Transcranial Direct Current Stimulation in Post-Stroke Aphasia Recovery. *Stroke.* 2017; 48(3):820-826.

Publications:

Wortman-Jutt, S. and Edwards, D. On the Generalizability of Post-Stroke Proportional Recovery. *European Journal of Neurology.* 2017;24(12):e83-e84. doi: 10.1111/ene.13408

Wortman-Jutt, S. and Edwards, D. Transcranial Direct Current Stimulation in Post-Stroke Aphasia Recovery. *Stroke.* 2017; 48(3):820-826. doi: 10.1161/STROKEAHA.116.015626.

Peters HT, Edwards DJ, **Wortman-Jutt S**, Page SJ. Moving Forward by Stimulating the Brain: Transcranial Direct Current Stimulation in Post-Stroke Hemiparesis. *Frontiers in Human Neuroscience*. 2016;10:394. doi:10.3389/fnhum.2016.00394.