Mapping the functional connectome in traumatic brain injury: What can graph metrics tell us?

Karen Caeyenberghs, Helena Verhelst, Adam Clemente, Peter H. Wilson

PII: S1053-8119(16)30694-2
DOI: http://dx.doi.org/10.1016/j.neuroimage.2016.12.003
Reference: YNIMG13624

To appear in: *NeuroImage*

Received date: 29 August 2016
Revised date: 25 November 2016
Accepted date: 1 December 2016

Cite this article as: Karen Caeyenberghs, Helena Verhelst, Adam Clemente and Peter H. Wilson, Mapping the functional connectome in traumatic brain injury What can graph metrics tell us?, *NeuroImage* http://dx.doi.org/10.1016/j.neuroimage.2016.12.003

Mapping the functional connectome in traumatic brain injury: What can graph metrics tell us?

Karen Caeyenberghs[1], Helena Verhelst[21], Adam Clemente[1], Peter H. Wilson[1]

[1]School of Psychology, Faculty of Health Sciences, Australian Catholic University, Victoria, Australia

[2]Department of Experimental Psychology, Faculty of Psychology and Educational Sciences, Ghent University, Ghent, Belgium

*

Corresponding author: Karen Caeyenberghs, School of Psychology | Faculty of Health Sciences, Australian Catholic University, 115 Victoria Pde., Melbourne VIC 3065, AUSTRALIA. Tel.: +61 3 9230 8067. E-mail: Karen.Caeyenberghs@acu.edu.au

Abstract

Objective:

Traumatic brain injury (TBI) is associated with cognitive and motor deficits, and poses a significant personal, societal, and economic burden. One mechanism by which TBI is thought to affect cognition and behaviour is through changes in functional connectivity. Graph theory is a powerful framework for quantifying topological features of neuroimaging-derived functional networks. The objective of this paper is to review studies examining functional

[1] shared first author