

## University of Groningen

### Adaptation after mild traumatic brain injury

van der Horn, Harm

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*

Publisher's PDF, also known as Version of record

*Publication date:*

2017

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*

van der Horn, H. (2017). *Adaptation after mild traumatic brain injury: The role of structural and functional brain networks*. Rijksuniversiteit Groningen.

**Copyright**

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

**Take-down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*

## References

- Abou Elseoud, A. et al., 2011. Group-ICA Model Order Highlights Patterns of Functional Brain Connectivity. *Frontiers in systems neuroscience*, 5, p.37.
- AFNI, 1995. <http://afni.nimh.nih.gov/afni>.
- Allen, E. et al., 2011. Capturing inter-subject variability with group independent component analysis of fMRI data: A simulation study. *Neuroimage*, 59(4), pp.4141–4159. Available at: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list\\_uids=7413403020182932970related:6s3P2sSy4WYJ](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=7413403020182932970related:6s3P2sSy4WYJ).
- Allen, E.A. et al., 2011. A baseline for the multivariate comparison of resting-state networks. *Frontiers in systems neuroscience*, 5(February), p.2.
- Allen, E.A. et al., 2014. Tracking whole-brain connectivity dynamics in the resting state. *Cerebral cortex*, 24(3), pp.663–676.
- Andrews-Hanna, J.R., Smallwood, J. & Spreng, R.N., 2014. The default network and self-generated thought: component processes, dynamic control, and clinical relevance. *Annals of the New York Academy of Sciences*, 1316, pp.29–52.
- Anson, K. & Ponsford, J., 2006. Coping and emotional adjustment following traumatic brain injury. *The Journal of head trauma rehabilitation*, 21(3), pp.248–259.
- Anticevic, A. et al., 2012. The role of default network deactivation in cognition and disease. *Trends in Cognitive Sciences*, 16(12), pp.584–592.
- Azulay, J. et al., 2013. A Pilot Study Examining the Effect of Mindfulness-Based Stress Reduction on Symptoms of Chronic Mild Traumatic Brain Injury/Postconcussive Syndrome. *J Head Trauma Rehabil*, 28(4), pp.323–331. Available at: <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=ovfto&NEWS=N&AN=00001199-201307000-00010>.

- Banks, S.J. et al., 2007. Amygdala-frontal connectivity during emotion regulation. *Social cognitive and affective neuroscience*, 2(4), pp.303–312.
- Barbey, A.K. et al., 2015. Network topology and dynamics in traumatic brain injury. *Cognitive enhancement*, 4, pp.92–102. Available at: <http://www.sciencedirect.com/science/article/pii/S2352154615000510>.
- Bassett, D.S. et al., 2011. Conserved and variable architecture of human white matter connectivity. *NeuroImage*, 54(2), pp.1262–1279.
- Bazarian, J.J. et al., 2005. Mild traumatic brain injury in the United States, 1998--2000. *Brain injury : [BI]*, 19(2), pp.85–91.
- Bazarian, J.J. et al., 2010. Sex differences in outcome after mild traumatic brain injury. *Journal of neurotrauma*, 27(3), pp.527–539.
- Bazarian, J.J., Blyth, B. & Cimpello, L., 2006. Bench to bedside: evidence for brain injury after concussion--looking beyond the computed tomography scan. *Academic emergency medicine : official journal of the Society for Academic Emergency Medicine*, 13(2), pp.199–214.
- Beauregard, M., Paquette, V. & Levesque, J., 2006. Dysfunction in the neural circuitry of emotional self-regulation in major depressive disorder. *Neuroreport*, 17(8), pp.843–846.
- Belanger, H.G., Vanderploeg, R.D. & McAllister, T., 2016. Subconcussive Blows to the Head: A Formative Review of Short-term Clinical Outcomes. *Journal of Head Trauma Rehabilitation*, 31(3), pp.159–166. Available at: [http://content.wkhealth.com/linkback/openurl?sid=WKP\\_TLP:landingpage&an=00001199-900000000-99717](http://content.wkhealth.com/linkback/openurl?sid=WKP_TLP:landingpage&an=00001199-900000000-99717).
- Bell, K.R. et al., 2008. The effect of telephone counselling on reducing post-traumatic symptoms after mild traumatic brain injury: A randomised trial. *Journal of Neurology, Neurosurgery and Psychiatry*, 79(11), pp.1275–1281.
- Belleau, E.L., Taubitz, L.E. & Larson, C.L., 2015. Imbalance of default mode and regulatory networks during externally focused processing in depression. *Social cognitive and affective neuroscience*, 10(5), pp.744–751.
- Benedictus, M.R., Spikman, J.M. & van der Naalt, J., 2010. Cognitive and behavioral impairment in traumatic brain injury related to outcome and return to work. *Archives of Physical Medicine and Rehabilitation*, 91(9), pp.1436–1441.

- Benjamini, Y. & Hochberg, Y., 1995. Controlling the False Discovery Rate: a Practical and Powerful Approach to Multiple Testing. *Journal of the Royal Statistical Society. Series B (Methodological)*, 57(1), pp.289–300. Available at: <http://www.jstor.org/stable/2346101><http://about.jstor.org/terms>.
- Bennett, C.M., Wolford, G.L. & Miller, M.B., 2009. The principled control of false positives in neuroimaging. *Social cognitive and affective neuroscience*, 4(4), pp.417–422.
- Beutler, L.E. et al., 2011. Coping Style. *Journal of Clinical Psychology*, 67(2), pp.176–183.
- Bigler, E.D., 2007. Anterior and middle cranial fossa in traumatic brain injury: relevant neuroanatomy and neuropathology in the study of neuropsychological outcome. *Neuropsychology*, 21(5), pp.515–531.
- Bjelland, I. et al., 2002. The validity of the Hospital Anxiety and Depression Scale. An updated literature review. *Journal of psychosomatic research*, 52(2), pp.69–77.
- Blondel, V.D. et al., 2008. Fast unfolding of communities in large networks. *Journal of Statistical Mechanics: Theory and Experiment*, 10008(10), p.6. Available at: <http://arxiv.org/abs/0803.0476>.
- Bocorean, C. & Dupret, E., 2014. A validation study of the Hospital Anxiety and Depression Scale (HADS) in a large sample of French employees. *BMC psychiatry*, 14, pp.350–354.
- Bohnen, N. et al., 1992. Coping styles, cortisol reactivity, and performance in a vigilance task of patients with persistent postconcussive symptoms after a mild head injury. *The International journal of neuroscience*, 64(1–4), pp.97–105.
- Bonnelle, V. et al., 2011. Default mode network connectivity predicts sustained attention deficits after traumatic brain injury. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 31(38), pp.13442–13451.
- Bonnelle, V. et al., 2012. Salience network integrity predicts default mode network function after traumatic brain injury. *Proceedings of the National Academy of Sciences of the United States of America*, 109(12), pp.4690–4695.
- Borich, M. et al., 2015. Alterations in resting-state brain networks in concussed adolescent athletes. *Journal of neurotrauma*, 32(4), pp.265–271.

- Broshek, D.K., De Marco, A.P. & Freeman, J.R., 2015. A review of post-concussion syndrome and psychological factors associated with concussion. *Brain injury*, 29(2), pp.228–237.
- Bryer, E.J. et al., 2013. Neural recruitment after mild traumatic brain injury is task dependent: a meta-analysis. *Journal of the International Neuropsychological Society: JINS*, 19(7), pp.751–762.
- Buchsbaum, B.R. & D’Esposito, M., 2008. The search for the phonological store: from loop to convolution. *Journal of cognitive neuroscience*, 20(5), pp.762–778.
- Buckner, R.L., Andrews-Hanna, J.R. & Schacter, D.L., 2008. The brain’s default network: anatomy, function, and relevance to disease. *Annals of the New York Academy of Sciences*, 1124, pp.1–38.
- Caeyenberghs, K. et al., 2014. Altered structural networks and executive deficits in traumatic brain injury patients. *Brain structure & function*, 219(1), pp.193–209.
- Caeyenberghs, K. et al., 2012. Brain connectivity and postural control in young traumatic brain injury patients: A diffusion MRI based network analysis. *NeuroImage.Clinical*, 1(1), pp.106–115.
- Caeyenberghs, K. et al., 2013. Topological correlations of structural and functional networks in patients with traumatic brain injury. *Frontiers in human neuroscience*, 7, p.726.
- Calhoun, V.D. et al., 2001. A method for making group inferences from functional MRI data using independent component analysis. *Human brain mapping*, 14(3), pp.140–151.
- Carroll, L.J. et al., 2004. Prognosis for mild traumatic brain injury: Results of the WHO Collaborating Centre Task Force on mild traumatic brain injury. *Journal of Rehabilitation Medicine*, 36(SUPPL. 43), pp.84–105.
- Carroll, L.J. et al., 2014. Systematic review of the prognosis after mild traumatic brain injury in adults: cognitive, psychiatric, and mortality outcomes: results of the International Collaboration on Mild Traumatic Brain Injury Prognosis. *Archives of Physical Medicine and Rehabilitation*, 95(3 Suppl), pp.S152–73.

- Cassidy, J.D. et al., 2004. Incidence, risk factors and prevention of mild traumatic brain injury: results of the WHO Collaborating Centre Task Force on Mild Traumatic Brain Injury. *Journal of Rehabilitation Medicine*, (43 Suppl)(43 Suppl), pp.28–60.
- Cassidy, J.D. et al., 2014. Systematic review of self-reported prognosis in adults after mild traumatic brain injury: results of the International Collaboration on Mild Traumatic Brain Injury Prognosis. *Archives of Physical Medicine and Rehabilitation*, 95(3 Suppl), pp.S132-51.
- Cavanna, A.E. & Trimble, M.R., 2006. The precuneus: a review of its functional anatomy and behavioural correlates. *Brain : a journal of neurology*, 129(Pt 3), pp.564–583.
- Chastain, C.A. et al., 2009. Predicting outcomes of traumatic brain injury by imaging modality and injury distribution. *Journal of neurotrauma*, 26(8), pp.1183–1196.
- Chen, C.J. et al., 2012. Working memory in patients with mild traumatic brain injury: functional MR imaging analysis. *Radiology*, 264(3), pp.844–851.
- Chen, J.K. et al., 2007. A validation of the post concussion symptom scale in the assessment of complex concussion using cognitive testing and functional MRI. *Journal of neurology, neurosurgery, and psychiatry*, 78(11), pp.1231–1238.
- Chen, J.K. et al., 2008. Neural substrates of symptoms of depression following concussion in male athletes with persisting postconcussion symptoms. *Archives of General Psychiatry*, 65(1), pp.81–89.
- Chu, Z. et al., 2010. Voxel-based analysis of diffusion tensor imaging in mild traumatic brain injury in adolescents. *AJNR.American journal of neuroradiology*, 31(2), pp.340–346.
- Cole, D.M., Smith, S.M. & Beckmann, C.F., 2010. Advances and pitfalls in the analysis and interpretation of resting-state FMRI data. *Frontiers in systems neuroscience*, 4, p.8.
- Cole, M.W., Pathak, S. & Schneider, W., 2010. Identifying the brain's most globally connected regions. *NeuroImage*, 49(4), pp.3132–3148. Available at: <http://dx.doi.org/10.1016/j.neuroimage.2009.11.001>.

- Cole, M.W., Repovs, G. & Anticevic, A., 2014. The Frontoparietal Control System: A Central Role in Mental Health. *The Neuroscientist : a review journal bringing neurobiology, neurology and psychiatry*, 20(6), pp.652–664.
- Cole, M.W. & Schneider, W., 2007. The cognitive control network: Integrated cortical regions with dissociable functions. *NeuroImage*, 37(1), pp.343–360.
- Copes, W.S. et al., 1988. The Injury Severity Score revisited. *The Journal of trauma*, 28(1), pp.69–77.
- Corbetta, M., 1998. Frontoparietal cortical networks for directing attention and the eye to visual locations: identical, independent, or overlapping neural systems? *Proceedings of the National Academy of Sciences of the United States of America*, 95(3), pp.831–8. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=33805&tool=pmcentrez&rendertype=abstract>.
- Corrigan, J.D., Selassie, A.W. & Orman, J.A., 2010. The epidemiology of traumatic brain injury. *The Journal of head trauma rehabilitation*, 25(2), pp.72–80.
- Coutinho, J.F. et al., 2016. Default mode network dissociation in depressive and anxiety states. *Brain Imaging and Behavior*, 10(1), pp.147–157.
- Craig, A.D., 2009. How do you feel--now? The anterior insula and human awareness. *Nature reviews.Neuroscience*, 10(1), pp.59–70.
- Dale, A.M., Fischl, B. & Sereno, M.I., 1999. Cortical surface-based analysis. I. Segmentation and surface reconstruction. *NeuroImage*, 9(2), pp.179–194.
- Dale, A.M. & Sereno, M.I., 1993. Improved Localization of Cortical Activity by Combining EEG and MEG with MRI Cortical Surface Reconstruction: A Linear Approach. *Journal of cognitive neuroscience*, 5(2), pp.162–176.
- Dall'Acqua, P. et al., 2016. Connectomic and Surface-Based Morphometric Correlates of Acute Mild Traumatic Brain Injury. *Frontiers in human neuroscience*, 10, p.127.
- Desikan, R.S. et al., 2006. An automated labeling system for subdividing the human cerebral cortex on MRI scans into gyral based regions of interest. *NeuroImage*, 31(3), pp.968–980.
- Deyoung, C.G. et al., 2011. Testing Predictions From Personality Neuroscience: Brain Structure and the Big Five. *Psychological Science*, 21(6), pp.820–828.

- Van Dijk, K.R.A. et al., 2010. Intrinsic Functional Connectivity As a Tool For Human Connectomics: Theory, Properties, and Optimization. *Journal of neurophysiology*, 103(1), pp.297–321. Available at: <http://jn.physiology.org/content/103/1/297.abstract>.
- Dikmen, S., Machamer, J. & Temkin, N.R., 2016. Mild Traumatic Brain Injury: Longitudinal study of cognition, functional status, and post-traumatic symptoms. *Journal of Neurotrauma*, p.neu.2016.4618. Available at: <http://online.liebert-pub.com/doi/10.1089/neu.2016.4618>.
- Dischinger, P.C. et al., 2009. Early predictors of postconcussive syndrome in a population of trauma patients with mild traumatic brain injury. *The Journal of trauma*, 66(2), pp.287–289.
- Dodd, A.B. et al., 2014. Diffusion tensor imaging findings in semi-acute mild traumatic brain injury. *Journal of neurotrauma*, 31(14), pp.1235–1248.
- Dosenbach, N.U. et al., 2006. A core system for the implementation of task sets. *Neuron*, 50(5), pp.799–812.
- Duarte-Carvajalino, J.M. et al., 2012. Hierarchical topological network analysis of anatomical human brain connectivity and differences related to sex and kinship. *NeuroImage*, 59(4), pp.3784–3804. Available at: <http://www.sciencedirect.com/science/article/pii/S1053811911012687>.
- Edwards, M.J. et al., 2012. A Bayesian account of “hysteria.” *Brain*, 135(11), pp.3495–3512.
- Eierud, C. et al., 2014. Neuroimaging after mild traumatic brain injury: Review and meta-analysis. *NeuroImage.Clinical*, 4, pp.283–294.
- Eklund, A., Nichols, T.E. & Knutsson, H., 2016. Cluster failure: Why fMRI inferences for spatial extent have inflated false-positive rates. *Proceedings of the National Academy of Sciences*, p.201602413. Available at: <http://www.pnas.org/lookup/doi/10.1073/pnas.1602413113>.
- Ettenhofer, M.L. & Barry, D.M., 2012. A comparison of long-term postconcussive symptoms between university students with and without a history of mild traumatic brain injury or orthopedic injury. *Journal of the International Neuropsychological Society : JINS*, 18(3), pp.451–460.
- Euston, D.R., Gruber, A.J. & McNaughton, B.L., 2012. The role of medial prefrontal cortex in memory and decision making. *Neuron*, 76(6), pp.1057–1070.



- Fagerholm, E.D. et al., 2015. Disconnection of network hubs and cognitive impairment after traumatic brain injury. *Brain : a journal of neurology*, 138(Pt 6), pp.1696–1709.
- Filippi, M. et al., 2013. Assessment of system dysfunction in the brain through MRI-based connectomics. *The Lancet.Neurology*, 12(12), pp.1189–1199.
- Fischl, B., van der Kouwe, A., et al., 2004. Automatically parcellating the human cerebral cortex. *Cerebral cortex*, 14(1), pp.11–22.
- Fischl, B. et al., 1999. High-resolution intersubject averaging and a coordinate system for the cortical surface. *Human brain mapping*, 8(4), pp.272–284.
- Fischl, B., Salat, D.H., et al., 2004. Sequence-independent segmentation of magnetic resonance images. *NeuroImage*, 23 Suppl 1, pp.S69-84.
- Fischl, B. et al., 2002. Whole brain segmentation: automated labeling of neuroanatomical structures in the human brain. *Neuron*, 33(3), pp.341–355.
- Fischl, B. & Dale, A.M., 2000. Measuring the thickness of the human cerebral cortex from magnetic resonance images. *Proceedings of the National Academy of Sciences of the United States of America*, 97(20), pp.11050–11055.
- Fischl, B., Liu, A. & Dale, A.M., 2001. Automated manifold surgery: constructing geometrically accurate and topologically correct models of the human cerebral cortex. *IEEE Transactions on Medical Imaging*, 20(1), pp.70–80.
- Fisher, R.A., 1915. Frequency distribution of the values of the correlation coefficient in samples from an indefinitely large population. *Biometrika*, 10(4), pp.507–521.
- Fornito, A., Zalesky, A. & Breakspear, M., 2013. Graph analysis of the human connectome: promise, progress, and pitfalls. *NeuroImage*, 80, pp.426–444.
- Fox, K.C.R. et al., 2016. Corrigendum to “The wandering brain: Meta-analysis of functional neuroimaging studies of mind-wandering and related spontaneous thought processes” [NeuroImage 111 (2015) 611-621]. *NeuroImage*, 111, pp.611–621. Available at: <http://dx.doi.org/10.1016/j.neuroimage.2015.02.039>.
- Frank, D.W. et al., 2014. Emotion regulation: Quantitative meta-analysis of functional activation and deactivation. *Neuroscience and biobehavioral reviews*, 45C, pp.202–211.

- Frewen, P.A., Dozois, D.J.A. & Lanius, R.A., 2008. Neuroimaging studies of psychological interventions for mood and anxiety disorders: empirical and methodological review. *Clinical psychology review*, 28(2), pp.228–246.
- Geerligs, L. et al., 2015. A Brain-Wide Study of Age-Related Changes in Functional Connectivity. *Cerebral Cortex*, 25(7), pp.1987–1999.
- Geurts, B.H. et al., 2012. The reliability of magnetic resonance imaging in traumatic brain injury lesion detection. *Brain injury*, 26(12), pp.1439–1450.
- Girvan, M. & Newman, M.E.K., 2002. Community structure in social and biological networks. *Proct Natl Acad Sci USA*, 99(12), pp.7821–7826.
- Goldin, P.R. et al., 2014. Impact of cognitive-behavioral therapy for social anxiety disorder on the neural bases of emotional reactivity to and regulation of social evaluation. *Behaviour Research and Therapy*, 62, pp.97–106. Available at: <http://dx.doi.org/10.1016/j.brat.2014.08.005>.
- Golkar, A. et al., 2014. The influence of work-related chronic stress on the regulation of emotion and on functional connectivity in the brain. *PloS one*, 9(9), p.e104550.
- Gong, G. et al., 2009. Age- and gender-related differences in the cortical anatomical network. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 29(50), pp.15684–15693.
- Greenberg, S.M. et al., 2009. Cerebral microbleeds: a guide to detection and interpretation. *The Lancet.Neurology*, 8(2), pp.165–174.
- Greicius, M.D. et al., 2003. Functional connectivity in the resting brain: a network analysis of the default mode hypothesis. *Proceedings of the National Academy of Sciences of the United States of America*, 100(1), pp.253–8. Available at: <http://www.pnas.org/content/100/1/253.short>.
- Gu, J. et al., 2015. How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*, 37, pp.1–12. Available at: <http://dx.doi.org/10.1016/j.cpr.2015.01.006>.
- Hageman, G. et al., 2010. Richtlijn: opvang van patiënten met licht traumatisch hoofd/hersenletsel, Utrecht (The Netherlands): Nederlandse Vereniging voor Neurologie.

- Hahn, A. et al., 2011. Reduced resting-state functional connectivity between amygdala and orbitofrontal cortex in social anxiety disorder. *NeuroImage*, 56(3), pp.881–889.
- Hamilton, J.P. et al., 2011. Default-mode and task-positive network activity in major depressive disorder: implications for adaptive and maladaptive rumination. *Biological psychiatry*, 70(4), pp.327–333.
- Hammes, J.G.W., 1971. *De Stroop Kleur-Woord Test. Handleiding.*, Lisse (The Netherlands): Swets and Zeitlinger.
- Hermans, E.J. et al., 2011. Stress-related noradrenergic activity prompts large-scale neural network reconfiguration. *Science* (New York, N.Y.), 334(6059), pp.1151–1153.
- Herwig, U. et al., 2007. Modulation of anticipatory emotion and perception processing by cognitive control. *NeuroImage*, 37(2), pp.652–662.
- Herwig, U. et al., 2010. Self-related awareness and emotion regulation. *NeuroImage*, 50(2), pp.734–741.
- van den Heuvel, M.P. & Hulshoff Pol, H.E., 2010. Exploring the brain network: a review on resting-state fMRI functional connectivity. *European neuropsychopharmacology : the journal of the European College of Neuropsychopharmacology*, 20(8), pp.519–534.
- van den Heuvel, M.P. & Sporns, O., 2013. Network hubs in the human brain. *Trends in cognitive sciences*, 17(12), pp.683–696.
- Hillary, F.G. et al., 2014. The rich get richer: brain injury elicits hyperconnectivity in core subnetworks. *PLoS one*, 9(8), p.e104021.
- Himberg, J., Hyvarinen, A. & Esposito, F., 2004. Validating the independent components of neuroimaging time series via clustering and visualization. *NeuroImage*, 22(3), pp.1214–1222.
- Hofman, P.A. et al., 2001. MR imaging, single-photon emission CT, and neurocognitive performance after mild traumatic brain injury. *AJNR.American journal of neuroradiology*, 22(3), pp.441–449.

- van der Horn, H.J. et al., 2016. Altered wiring of the human structural connectome in adults with mild traumatic brain injury. *Journal of neurotrauma*. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/27627836> [Accessed September 17, 2016].
- van der Horn, H.J., Liemburg, E.J., Scheenen, M.E., et al., 2016. Brain network dysregulation, emotion, and complaints after mild traumatic brain injury. *Human Brain Mapping*, 37(4), pp.1645–1654.
- van der Horn, H.J., Liemburg, E.J., Aleman, A., et al., 2016. Brain Networks Sub-serving Emotion Regulation and Adaptation after Mild Traumatic Brain Injury. *Journal of Neurotrauma*, 33(1), pp.1–9. Available at: <http://online.liebertpub.com/doi/10.1089/neu.2015.3905>.
- van der Horn, H.J. et al., 2015. Post-concussive complaints after mild traumatic brain injury associated with altered brain networks during working memory performance. *Brain Imaging and Behavior*, pp.1–11.
- van der Horn, H.J. et al., 2013. Postconcussive complaints, anxiety, and depression related to vocational outcome in minor to severe traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*, 94(5), pp.867–874.
- Hou, R. et al., 2012. When a minor head injury results in enduring symptoms: A prospective investigation of risk factors for postconcussional syndrome after mild traumatic brain injury. *Journal of Neurology, Neurosurgery & Psychiatry*, 83, pp.217–223. Available at: <http://eprints.soton.ac.uk/201595/1/jnnp-2011-300767.full%5Cnhttp://jnnp.bmj.com/cgi/doi/10.1136/jnnp-2011-300767>.
- Hsu, H.-L. et al., 2015. sex Differences in Working Memory after Mild Traumatic Brain injury: A Functional MR Imaging Study 1. *radiology.rsna.org n Radiology*, 276, p.142549.
- Huang, Y.-L. et al., 2015. Susceptibility-weighted MRI in mild traumatic brain injury. *Neurology*, 84(6), pp.580–5. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25576634>.
- Hughes, D.G. et al., 2004. Abnormalities on magnetic resonance imaging seen acutely following mild traumatic brain injury: correlation with neuropsychological tests and delayed recovery. *Neuroradiology*, 46(7), pp.550–558.
- Ilvesmaki, T. et al., 2014. Acute mild traumatic brain injury is not associated with white matter change on diffusion tensor imaging. *Brain : a journal of neurology*, 137(Pt 7), pp.1876–1882.

- Ingalhalikar, M. et al., 2014. Sex differences in the structural connectome of the human brain. *Proceedings of the National Academy of Sciences of the United States of America*, 111(2), pp.823–828.
- Irfanoglu, M.O. et al., 2012. Effects of image distortions originating from susceptibility variations and concomitant fields on diffusion MRI tractography results. *NeuroImage*, 61(1), pp.275–288.
- Iverson, G.L. et al., 2010. “ Good Old Days ” Bias Following Mild Traumatic Brain Injury. *The Clinical neuropsychologist*, 24(1), pp.17–37.
- Iverson, G.L. et al., 2012. Outcome from Complicated versus Uncomplicated Mild Traumatic Brain Injury. *Rehabilitation Research and Practice*, 2012, pp.1–7.
- Iverson, G.L., 2005. Outcome from mild traumatic brain injury. *Curr Opin Psychiatry*, 18(3), pp.301–317.
- Iverson, G.L. et al., 2000. Prevalence of abnormal CT-scans following mild head injury. *Brain injury : [BI]*, 14(12), pp.1057–1061.
- Jacobs, B. et al., 2010. Outcome prediction in mild traumatic brain injury: age and clinical variables are stronger predictors than CT abnormalities. *Journal of neurotrauma*, 27(4), pp.655–668.
- Jafri, M.J. et al., 2008. A method for functional network connectivity among spatially independent resting-state components in schizophrenia. *NeuroImage*, 39(4), pp.1666–1681.
- Jeurissen, B. et al., 2011. Probabilistic fiber tracking using the residual bootstrap with constrained spherical deconvolution. *Human brain mapping*, 32(3), pp.461–479.
- Jilka, S.R. et al., 2014. Damage to the Salience Network and interactions with the Default Mode Network. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 34(33), pp.10798–10807.
- Johansson, B., Berglund, P. & Ronnback, L., 2009. Mental fatigue and impaired information processing after mild and moderate traumatic brain injury. *Brain injury*, 23(13–14), pp.1027–1040.
- Johnson, B. et al., 2012. Alteration of brain default network in subacute phase of injury in concussed individuals: resting-state fMRI study. *NeuroImage*, 59(1), pp.511–518.

- Johnson, B. et al., 2014. Effects of subconcussive head trauma on the default mode network of the brain. *Journal of neurotrauma*, 31(23), pp.1907–1913.
- Jones, D.K., 2010. Challenges and limitations of quantifying brain connectivity in vivo with diffusion MRI. . *Imaging in Medicine*, 2(3), pp.341–355.
- Jones, D.K. & Cercignani, M., 2010. Twenty-five pitfalls in the analysis of diffusion MRI data. *NMR in biomedicine*, 23(7), pp.803–820.
- Jones, D.K., Knosche, T.R. & Turner, R., 2013. White matter integrity, fiber count, and other fallacies: the do's and don'ts of diffusion MRI. *NeuroImage*, 73, pp.239–254.
- Kabat-Zinn, J., 1982. an Outpatient Program in Behavioral Medicine for Chronic Pain Patients Based on the Practice of Mindfulness Meditation - Theoretical Considerations and Preliminary-Results. *General Hospital Psychiatry*, 4, pp.33–47. Available at: <http://www.sciencedirect.com/science/article/pii/0163834382900263>.
- Kabat-Zinn, J., Lipworth, L. & Burney, R., 1985. The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine*, 8(2), pp.163–190.
- Kayd, T. et al., 1993. Definition of mild traumatic brain injury. *Journal of Head Trauma Rehabilitation*, 8, pp.86–87. Available at: [file:///C:/Users/Lori/AppData/Local/Mendeley Ltd/Mendeley Desktop/Downloaded/Unknown - Unknown - TBIDef\\_English\\_10-10.pdf](file:///C:/Users/Lori/AppData/Local/Mendeley%20Ltd/Mendeley%20Desktop/Downloaded/Unknown%20-%20Unknown%20-%20TBIDef_English_10-10.pdf) (applicationpdf Object).html.
- Khoury, B. et al., 2015. Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *Journal of Psychosomatic Research*, 78(6), pp.519–528. Available at: <http://dx.doi.org/10.1016/j.jpsychores.2015.03.009>.
- Kim, J. et al., 2014. Disrupted structural connectome is associated with both psychometric and real-world neuropsychological impairment in diffuse traumatic brain injury. *Journal of the International Neuropsychological Society : JINS*, 20(9), pp.887–896.
- King, A.P. et al., 2016. Altered Default Mode Network (Dmn) Resting State Functional Connectivity Following a Mindfulness-Based Exposure Therapy for Post-traumatic Stress Disorder (Ptd) in Combat Veterans of Afghanistan and Iraq. *Depression and anxiety*, 33(4), pp.289–299.

- King, N.S. et al., 1995. The Rivermead Post Concussion Symptoms Questionnaire: a measure of symptoms commonly experienced after head injury and its reliability. *Journal of neurology*, 242(9), pp.587–592.
- Kiviniemi, V. et al., 2009. Functional segmentation of the brain cortex using high model order group PICA. *Human brain mapping*, 30(12), pp.3865–3886.
- de Kloet, E.R., Joels, M. & Holsboer, F., 2005. Stress and the brain: from adaptation to disease. *Nature reviews.Neuroscience*, 6(6), pp.463–475.
- de Koning, M.E. et al., 2016. Subacute posttraumatic complaints and psychological distress in trauma patients with or without mild traumatic brain injury. *Injury*, 47(9), pp.2041–2047. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0020138316301401>.
- Koshino, H. et al., 2014. Coactivation of the Default Mode Network regions and Working Memory Network regions during task preparation. *Scientific reports*, 4, p.5954.
- Kullmann, S. et al., 2013. Functional network connectivity underlying food processing: disturbed salience and visual processing in overweight and obese adults. *Cerebral cortex*, 23(5), pp.1247–1256.
- Laatsch, L.K. et al., 2004. Investigating the neurobiological basis of cognitive rehabilitation therapy with fMRI. *Brain injury : [BI]*, 18(10), pp.957–974. Available at: [http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&DbFrom=pubmed&Cmd=Link&LinkName=pubmed\\_pubmed&LinkReadableName=RelatedArticles&IdsFromResult=15370896&ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&DbFrom=pubmed&Cmd=Link&LinkName=pubmed_pubmed&LinkReadableName=RelatedArticles&IdsFromResult=15370896&ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum).
- Lagarde, E. et al., 2014. Association of Symptoms Following Mild Traumatic Brain Injury With Posttraumatic Stress Disorder vs Postconcussion Syndrome. *JAMA psychiatry*, 71(9), pp.1032–1040.
- Lange, R.T. et al., 2015. Diffusion tensor imaging findings and postconcussion symptom reporting six weeks following mild traumatic brain injury. *Archives of clinical neuropsychology : the official journal of the National Academy of Neuropsychologists*, 30(1), pp.7–25.
- Lange, R.T., Iverson, G.L. & Rose, A., 2010. Post-concussion symptom reporting and the “good-old-days” bias following mild traumatic brain injury. *Archives of Clinical Neuropsychology*, 25(5), pp.442–450.

- Lannsjö, M. et al., 2013. Does head CT scan pathology predict outcome after mild traumatic brain injury? *European Journal of Neurology*, 20(1), pp.124–129.
- Lee, H. et al., 2008. Focal lesions in acute mild traumatic brain injury and neurocognitive outcome: CT versus 3T MRI. *Journal of neurotrauma*, 25(9), pp.1049–1056.
- Leech, R. et al., 2011. Fractionating the default mode network: distinct contributions of the ventral and dorsal posterior cingulate cortex to cognitive control. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 31(9), pp.3217–3224.
- Leech, R. & Sharp, D.J., 2014. The role of the posterior cingulate cortex in cognition and disease. *Brain*, 137(1), pp.12–32.
- Leemans, A. et al., 2009. ExploreDTI: a graphical toolbox for processing, analyzing, and visualizing diffusion MR data. In *17th Annual Meeting of Intl Soc Mag Reson Med*. p. 3537.
- Leemans, A. & Jones, D.K., 2009. The B-matrix must be rotated when correcting for subject motion in DTI data. *Magnetic resonance in medicine*, 61(6), pp.1336–1349.
- Lenroot, R.K. & Giedd, J.N., 2006. Brain development in children and adolescents: insights from anatomical magnetic resonance imaging. *Neuroscience and biobehavioral reviews*, 30(6), pp.718–729.
- Li, W. et al., 2014. Regional specificity of sex effects on subcortical volumes across the lifespan in healthy aging. *Human Brain Mapping*, 35(1), pp.238–247.
- Li, Y.-O., Adali, T. & Calhoun, V.D., 2007. Estimating the number of independent components for functional magnetic resonance imaging data. *Human brain mapping*, 28(11), pp.1251–1266.
- Liberzon, I. et al., 2003. Extended amygdala and emotional salience: a PET activation study of positive and negative affect. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 28(4), pp.726–733.
- Lieberman, M.D. & Cunningham, W.A., 2009. Type I and Type II error concerns in fMRI research: re-balancing the scale. *Social cognitive and affective neuroscience*, 4(4), pp.423–428.



- Lingsma, H.F. et al., 2015. Outcome prediction after mild and complicated mild traumatic brain injury: external validation of existing models and identification of new predictors using the TRACK-TBI pilot study. *Journal of neurotrauma*, 32(2), pp.83–94.
- Link, J.S. et al., 2016. Mild Traumatic Brain Injury and Mindfulness-Based Stress Reduction : A Review. *Archives of Assessment Psychology*, 6(1), pp.7–32.
- Linley, 2012. Positive Change Following Trauma and Adversity: A Review. *European Science Editing*, 38(2), pp.35–37.
- Liu, K. et al., 2016. Mental fatigue after mild traumatic brain injury: a 3D-ASL perfusion study. *Brain Imaging and Behavior*.
- Lucassen, P.J. et al., 2014. Neuropathology of stress. *Acta Neuropathologica*, 127(1), pp.109–135.
- Lundin, A. et al., 2006. Symptoms and disability until 3 months after mild TBI. *Brain injury*, 20(8), pp.799–806.
- Mäki-Marttunen, V. et al., 2014. Enhanced Attention Capture by Emotional Stimuli in Mild Traumatic Brain Injury. *Journal of neurotrauma*, 27(9), pp.1–30. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25274125>.
- Maller, J.J. et al., 2014. The (Eigen)value of diffusion tensor imaging to investigate depression after traumatic brain injury. *Human brain mapping*, 35(1), pp.227–237.
- Manoliu, A. et al., 2014. Insular dysfunction within the salience network is associated with severity of symptoms and aberrant inter-network connectivity in major depressive disorder. *Frontiers in human neuroscience*, 7, p.930.
- Maslov, S. & Sneppen, K., 2002. Specificity and Stability in Topology of Protein Networks. *Science*, 296(5569), pp.910–913. Available at: <http://science.sciencemag.org/content/296/5569/910.abstract>.
- Matuseviciene, G. et al., 2013. Early intervention for patients at risk for persisting disability after mild traumatic brain injury: a randomized, controlled study. *Brain injury*, 27(3), pp.318–324.
- Matuseviciene, G., Eriksson, G. & Nygen DeBoussard, C., 2015. No effect of an early intervention after mild traumatic brain injury on activity and participation: A randomized controlled trial. *Journal of Rehabilitation Medicine*.

- Mayer, A.R. et al., 2011. Functional connectivity in mild traumatic brain injury. *Human brain mapping*, 32(11), pp.1825–1835.
- Mayer, A.R., Bellgowan, P.S. & Hanlon, F.M., 2015. Functional magnetic resonance imaging of mild traumatic brain injury. *Neuroscience and biobehavioral reviews*, 49C, pp.8–18.
- McAllister, T.W. et al., 1999. Brain activation during working memory 1 month after mild traumatic brain injury: a functional MRI study. *Neurology*, 53(6), pp.1300–1308.
- McAllister, T.W. et al., 2001. Differential working memory load effects after mild traumatic brain injury. *NeuroImage*, 14(5), pp.1004–1012.
- McAllister, T.W., 2011. Neurobiological consequences of traumatic brain injury. *Dialogues in Clinical Neuroscience*, 13(3), pp.287–300.
- McDonald, B.C., Saykin, A.J. & McAllister, T.W., 2012. Functional MRI of mild traumatic brain injury (mTBI): progress and perspectives from the first decade of studies. *Brain imaging and behavior*, 6(2), pp.193–207.
- McGraw, K.O. & Wong, S.P., 1992. A common language effect size statistic. *Psychological Bulletin*, 111(2), pp.361–365.
- McMahon, P. et al., 2014. Symptomatology and functional outcome in mild traumatic brain injury: results from the prospective TRACK-TBI study. *Journal of neurotrauma*, 31(1), pp.26–33.
- Meier, T.B., Bellgowan, P.S. & Mayer, A.R., 2016. Longitudinal assessment of local and global functional connectivity following sports-related concussion. *Brain imaging and behavior*.
- Menon, V. & Uddin, L.Q., 2010. Saliency, switching, attention and control: a network model of insula function. *Brain structure & function*, 214(5–6), pp.655–667.
- Messe, A. et al., 2013. Specific and evolving resting-state network alterations in post-concussion syndrome following mild traumatic brain injury. *PloS one*, 8(6), p.e65470.
- Messina, I. et al., 2015. Executive and semantic processes in reappraisal of negative stimuli: insights from a meta-analysis of neuroimaging studies. *Frontiers in psychology*, 6, p.956.

- Metting, Z. et al., 2009. Perfusion computed tomography in the acute phase of mild head injury: regional dysfunction and prognostic value. *Annals of Neurology*, 66(6), pp.809–816.
- Metting, Z. et al., 2007. Structural and functional neuroimaging in mild-to-moderate head injury. *Lancet Neurology*, 6(8), pp.699–710.
- Michopoulos, I. et al., 2008. Hospital Anxiety and Depression Scale (HADS): validation in a Greek general hospital sample. *Annals of general psychiatry*, 7, p.4.
- Miller, L. & Mittenberg, W., 1998. Brief Cognitive Behavioral Interventions in Mild Traumatic Brain Injury. *Applied Neuropsychology*, 5(4), pp.172–183.
- Mochcovitch, M.D. et al., 2014. A systematic review of fMRI studies in generalized anxiety disorder: Evaluating its neural and cognitive basis. *Journal of affective disorders*, 167C, pp.336–342.
- Mollayeva, T. et al., 2014. A systematic review of fatigue in patients with traumatic brain injury: The course, predictors and consequences. *Neuroscience and biobehavioral reviews*, 47C, pp.684–716.
- Mulders, P.C. et al., 2015. Resting-state functional connectivity in major depressive disorder: A review. *Neuroscience and biobehavioral reviews*, 56, pp.330–344.
- van der Naalt, J. et al., 1999. One year outcome in mild to moderate head injury: the predictive value of acute injury characteristics related to complaints and return to work. *Journal of neurology, neurosurgery, and psychiatry*, 66(2), pp.207–213.
- Nakamura, T., Hillary, F.G. & Biswal, B.B., 2009. Resting network plasticity following brain injury. *PloS one*, 4(12), p.e8220.
- Nathan, D.E. et al., 2015. Exploring Variations in Functional Connectivity of the Resting State Default Mode Network in Mild Traumatic Brain Injury. *Brain Connectivity*, 5(2), pp.102–114. Available at: <http://online.liebertpub.com/doi/10.1089/brain.2014.0273>.
- Nelson, L.D. et al., 2016. Preinjury somatization symptoms contribute to clinical recovery after sport-related concussion. *Neurology*, 86(20), pp.1856–1863.
- Newsome, M.R. et al., 2013. How functional connectivity between emotion regulation structures can be disrupted: preliminary evidence from adolescents with moderate to severe traumatic brain injury. *Journal of the International Neuropsychological Society : JINS*, 19(8), pp.911–924.

- Nichols, T.E. & Holmes, A.P., 2001. Nonparametric Permutation Tests for {PET} functional Neuroimaging Experiments: A Primer with examples. *Human Brain Mapping*, 15(1), pp.1–25. Available at: <http://www3.interscience.wiley.com/cgi-bin/abstract/86010644/>.
- Nielsen, M.B. & Knardahl, S., 2014. Coping strategies: a prospective study of patterns, stability, and relationships with psychological distress. *Scandinavian Journal of Psychology*, 55(2), pp.142–150.
- Ochsner, K.N. & Gross, J.J., 2005. The cognitive control of emotion. *Trends in Cognitive Sciences*, 9(5), pp.242–249.
- Ochsner, K.N., Silvers, J.A. & Buhle, J.T., 2012. Review and evolving model of the cognitive control of emotion. *Annals of the New York Academy of Sciences*, (1251), pp.E1–E24.
- Owen, A.M. et al., 2005. N-back working memory paradigm: a meta-analysis of normative functional neuroimaging studies. *Human brain mapping*, 25(1), pp.46–59.
- Palacios, E.M. et al., 2013. Resting-state functional magnetic resonance imaging activity and connectivity and cognitive outcome in traumatic brain injury. *JAMA neurology*, 70(7), pp.845–851.
- Palacios, E.M. et al., 2012. White matter integrity related to functional working memory networks in traumatic brain injury. *Neurology*, 78(12), pp.852–860.
- Pandit, A.S. et al., 2013. Traumatic brain injury impairs small-world topology. *Neurology*, 80(20), pp.1826–1833.
- Panenka, W.J. et al., 2015. Neuropsychological outcome and diffusion tensor imaging in complicated versus uncomplicated mild traumatic brain injury. *PLoS ONE*, 10(4), pp.1–27.
- Pannekoek, J.N. et al., 2013. Aberrant limbic and salience network resting-state functional connectivity in panic disorder without comorbidity. *Journal of affective disorders*, 145(1), pp.29–35.
- Polusny, M.A. et al., 2015. Mindfulness-Based Stress Reduction for Posttraumatic Stress Disorder Among Veterans: A Randomized Clinical Trial. *JAMA*, 314(5), pp.456–65. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26241597> [Accessed October 3, 2016].

- Ponsford, J. et al., 2011. Long-term outcomes after uncomplicated mild traumatic brain injury: a comparison with trauma controls. *Journal of neurotrauma*, 28(6), pp.937–946.
- Ponsford, J. et al., 2012. Predictors of postconcussive symptoms 3 months after mild traumatic brain injury. *Neuropsychology*, 26(3), pp.304–313.
- Power, J.D. et al., 2011. Functional Network Organization of the Human Brain. *Neuron*, 72(4), pp.665–678. Available at: <http://www.sciencedirect.com/science/article/pii/S0896627311007926>.
- Power, J.D. et al., 2012. Spurious but systematic correlations in functional connectivity MRI networks arise from subject motion. *NeuroImage*, 59(3), pp.2142–2154. Available at: <http://www.sciencedirect.com/science/article/pii/S1053811911011815>.
- Ptak, R., 2012. The Frontoparietal Attention Network of the Human Brain: Action, Saliency, and a Priority Map of the Environment. *The Neuroscientist*, 18(5), pp.502–515.
- Quoidbach, J., Mikolajczak, M. & Gross, J.J., 2015. Positive interventions: An emotion regulation perspective. *Psychological bulletin*, 141(3), pp.655–693.
- Raichle, M.E. et al., 2001. A default mode of brain function. *Proceedings of the National Academy of Sciences of the United States of America*, 98(2), pp.676–682.
- Raichle, M.E., 2015. The Brain's Default Mode Network. *Annual review of neuroscience*, (April), pp.413–427. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25938726>.
- Rao, V. et al., 2012. Diffusion tensor imaging atlas-based analyses in major depression after mild traumatic brain injury. *The Journal of neuropsychiatry and clinical neurosciences*, 24(3), pp.309–315.
- Rapoport, M.J. et al., 2003. The clinical significance of major depression following mild traumatic brain injury. *Psychosomatics*, 44(1), pp.31–37.
- Reitan, R.M. & Wolfson, D., 1985. *The Halstead–Reitan Neuropsychological Test Battery: Therapy and clinical interpretation*, Tucson, AZ, USA: Neuropsychological Press.
- Rey, A., 1964. *L'examen clinique en psychologie*, Paris: Presses Universitaires de France.

- Ribeiro Porto, P. et al., 2009. Does cognitive behavioral therapy change the brain? A systematic review of neuroimaging in anxiety disorders. *The Journal of neuropsychiatry and clinical neurosciences*, 21(2), pp.114–25. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19622682>.
- Rigon, A. & Duff MC, McAuley E, Kramer A, V.M., 2015. Is traumatic brain injury associated with reduced inter-hemispheric functional connectivity? A study of large-scale resting state networks following traumatic brain injury. *J. Neurotrauma*, 1, pp.1–71.
- Rohling, M.L. et al., 2011. A meta-analysis of neuropsychological outcome after mild traumatic brain injury: re-analyses and reconsiderations of Binder et al. (1997), Frencham et al. (2005), and Pertab et al. (2009). *The Clinical neuropsychologist*, 25(4), pp.608–623.
- Roozenbeek, B., Maas, A.I. & Menon, D.K., 2013. Changing patterns in the epidemiology of traumatic brain injury. *Nature reviews.Neurology*, 9(4), pp.231–236.
- Rosenbaum, S.B. & Lipton, M.L., 2012. Embracing chaos: the scope and importance of clinical and pathological heterogeneity in mTBI. *Brain imaging and behavior*, 6(2), pp.255–282.
- Roy, M.J. et al., 2010. Improvement in cerebral function with treatment of posttraumatic stress disorder. *Annals of the New York Academy of Sciences*, 1208(1), pp.142–149.
- Rubinov, M. & Sporns, O., 2010. Complex network measures of brain connectivity: uses and interpretations. *NeuroImage*, 52(3), pp.1059–1069.
- Rubinov, M. & Sporns, O., 2011. Weight-conserving characterization of complex functional brain networks. *NeuroImage*, 56(4), pp.2068–2079. Available at: <http://www.sciencedirect.com/science/article/pii/S105381191100348X>.
- Scheenen, M.E. et al., 2017. Description of an early cognitive behavioral intervention (UPFRONT-intervention) following mild traumatic brain injury to prevent persistent complaints and facilitate return to work. *Clinical Rehabilitation*, p.26921551668710. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/28114812> [Accessed January 30, 2017].
- Schmand, B., de Sterke, S. & Lindeboom, J., 1999. *Amsterdamse Korte Termijn Geheugen test*, Amsterdam (The Netherlands): Pearson Assessment and Information B.V.

- Seeley, W.W. et al., 2007. Dissociable intrinsic connectivity networks for salience processing and executive control. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 27(9), pp.2349–2356.
- Segonne, F. et al., 2004. A hybrid approach to the skull stripping problem in MRI. *NeuroImage*, 22(3), pp.1060–1075.
- Segonne, F., Pacheco, J. & Fischl, B., 2007. Geometrically accurate topology-correction of cortical surfaces using nonseparating loops. *IEEE Transactions on Medical Imaging*, 26(4), pp.518–529.
- Servaas, M.N. et al., 2015. Connectomics and neuroticism: an altered functional network organization. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 40(2), pp.296–304.
- Servaas, M.N. et al., 2014. The neural correlates of worry in association with individual differences in neuroticism. *Human brain mapping*, 35(9), pp.4303–4315.
- Shannon, C.E., 1948. A Mathematical Theory of Communication. *The Bell System Technical Journal*, 27, p.379.
- Sharp, D.J. et al., 2011. Default mode network functional and structural connectivity after traumatic brain injury. *Brain : a journal of neurology*, 134(Pt 8), pp.2233–2247.
- Sharp, D.J. & Ham, T.E., 2011. Investigating white matter injury after mild traumatic brain injury. *Current opinion in neurology*, 24(6), pp.558–563.
- Sharp, D.J., Scott, G. & Leech, R., 2014. Network dysfunction after traumatic brain injury. *Nat Rev Neurol*, 10(3), pp.156–166. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24514870>.
- Sheline, Y.I. et al., 2010. Resting-state functional MRI in depression unmasks increased connectivity between networks via the dorsal nexus. *Proceedings of the National Academy of Sciences of the United States of America*, 107(24), pp.11020–11025.
- Shenhav, A., Botvinick, M.M. & Cohen, J.D., 2013. The expected value of control: an integrative theory of anterior cingulate cortex function. *Neuron*, 79(2), pp.217–240.
- Sheppes, G., Suri, G. & Gross, J.J., 2015. Emotion regulation and psychopathology. *Annual review of clinical psychology*, 11, pp.379–405.

- Shumskaya, E. et al., 2012. Abnormal whole-brain functional networks in homogeneous acute mild traumatic brain injury. *Neurology*, 79(2), pp.175–182.
- Silverberg, N.D. et al., 2013. Cognitive-Behavioral Prevention of Postconcussion Syndrome in At-Risk Patients: A Pilot Randomized Controlled Trial. *J Head Trauma Rehabil*, 28(4), pp.313–322.
- Silverberg, N.D. & Iverson, G.L., 2011. Etiology of the post-concussion syndrome: Physiogenesis and Psychogenesis revisited. *NeuroRehabilitation*, 29(4), pp.317–329.
- Simon, R. & Engström, M., 2015. The default mode network as a biomarker for monitoring the therapeutic effects of meditation. *Frontiers in psychology*, 6(June), p.776. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=4460295&tool=pmcentrez&rendertype=abstract>.
- Skup, M., 2010. Longitudinal fMRI analysis: A review of methods. *Statistics and its interface*, 3(2), pp.235–252. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3117465&tool=pmcentrez&rendertype=abstract>.
- Sled, J.G., Zijdenbos, A.P. & Evans, A.C., 1998. A nonparametric method for automatic correction of intensity nonuniformity in MRI data. *IEEE Transactions on Medical Imaging*, 17(1), pp.87–97.
- Smith, D.H., 2006. Mild traumatic brain injury and psychiatric illness. *BC Medical Journal*, 48(10), pp.510–514.
- Smith, G.P. & Burger, G.K., 1997. Detection of malingering: validation of the Structured Inventory of Malingered Symptomatology (SIMS). *The journal of the American Academy of Psychiatry and the Law*, 25(2), pp.183–189.
- Smits, M. et al., 2009. Postconcussion syndrome after minor head injury: brain activation of working memory and attention. *Human brain mapping*, 30(9), pp.2789–2803.
- Sonuga-Barke, E.J. & Castellanos, F.X., 2007. Spontaneous attentional fluctuations in impaired states and pathological conditions: a neurobiological hypothesis. *Neuroscience and biobehavioral reviews*, 31(7), pp.977–986.
- Sours, C. et al., 2014. Associations between interhemispheric functional connectivity and the Automated Neuropsychological Assessment Metrics (ANAM) in civilian mild TBI. *Brain Imaging and Behavior*, 9(2), pp.190–203.



- Sours, C. et al., 2013. Default mode network interference in mild traumatic brain injury - A pilot resting state study. *Brain Research*, 1537, pp.201–215.
- Sours, C. et al., 2015. Disruptions in resting state functional connectivity and cerebral blood flow in mild traumatic brain injury patients. *PLoS ONE*, 10(8), pp.1–20.
- Spielberg, J.M. et al., 2015. Brain network disturbance related to posttraumatic stress and traumatic brain injury in veterans. *Biological psychiatry*, 78(3), pp.210–216.
- Spikman, J.M. et al., 2012. Social cognition impairments in relation to general cognitive deficits, injury severity, and prefrontal lesions in traumatic brain injury patients. *Journal of neurotrauma*, 29(1), pp.101–111.
- Spinhoven, P. et al., 1997. A validation study of the Hospital Anxiety and Depression Scale (HADS) in different groups of Dutch subjects. *Psychological medicine*, 27(2), pp.363–370.
- Sporns, O., 2013. Structure and function of complex brain networks. *Dialogues in clinical neuroscience*, 15(3), pp.247–262.
- Spreng, R.N. et al., 2010. Default network activity, coupled with the frontoparietal control network, supports goal-directed cognition. *NeuroImage*, 53(1), pp.303–317.
- Sridharan, D., Levitin, D.J. & Menon, V., 2008. A critical role for the right fronto-insular cortex in switching between central-executive and default-mode networks. *Proceedings of the National Academy of Sciences of the United States of America*, 105(34), pp.12569–12574.
- Sripada, R.K. et al., 2012. Neural dysregulation in posttraumatic stress disorder: evidence for disrupted equilibrium between salience and default mode brain networks. *Psychosomatic medicine*, 74(9), pp.904–911.
- Stam, C.J., 2014. Modern network science of neurological disorders. *Nature reviews. Neuroscience*, 15(10), pp.683–695.
- Stanley, M.L. et al., 2013. Defining nodes in complex brain networks. *Frontiers in computational neuroscience*, 7, p.169.
- Stevens, M.C. et al., 2012. Multiple resting state network functional connectivity abnormalities in mild traumatic brain injury. *Brain imaging and behavior*, 6(2), pp.293–318.

- Strehl, A. & Ghosh, J., 2002. Cluster Ensembles { A Knowledge Reuse Framework for Combining Multiple Partitions. *Journal of Machine Learning Research*, 3, pp.583–617.
- Stulemeijer, M. et al., 2007. Cognitive complaints after mild traumatic brain injury: things are not always what they seem. *Journal of psychosomatic research*, 63(6), pp.637–645.
- Sun, Y. et al., 2009. Improved community structure detection using a modified fine-tuning strategy. *Europhysics Letters*, 86(2).
- Sylvester, C.M. et al., 2012. Functional network dysfunction in anxiety and anxiety disorders. *Trends in neurosciences*, 35(9), pp.527–535.
- Tagliaferri, F. et al., 2006. A systematic review of brain injury epidemiology in Europe. *Acta Neurochirurgica*, 148(3), p.255–68; discussion 268.
- Tanji, J. & Hoshi, E., 2008. Role of the lateral prefrontal cortex in executive behavioral control. *Physiological Reviews*, 88(1), pp.37–57.
- Tax, C.M. et al., 2014. Recursive calibration of the fiber response function for spherical deconvolution of diffusion MRI data. *NeuroImage*, 86, pp.67–80.
- Termenon, M. et al., 2016. Reliability of graph analysis of resting state fMRI using test-retest dataset from the Human Connectome Project. *NeuroImage*, 142, pp.172–187. Available at: <http://dx.doi.org/10.1016/j.neuroimage.2016.05.062>.
- Tops, M. et al., 2014. Internally directed cognition and mindfulness: an integrative perspective derived from predictive and reactive control systems theory. *Frontiers in psychology*, 5, p.429.
- Tournier, J.D., Calamante, F. & Connelly, A., 2007. Robust determination of the fibre orientation distribution in diffusion MRI: non-negativity constrained super-resolved spherical deconvolution. *NeuroImage*, 35(4), pp.1459–1472.
- Tunç, B. et al., 2016. Establishing a link between sex-related differences in the structural connectome and behaviour. *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, 371(1688). Available at: <http://rstb.royalsocietypublishing.org/content/371/1688/20150111.abstract>.

- Uddin, L.Q., 2014. Salience processing and insular cortical function and dysfunction. *Nature Reviews Neuroscience*, 16(1), pp.55–61. Available at: <http://dx.doi.org/10.1038/nrn3857>.
- Utevsky, A. V, Smith, D. V & Huettel, S.A., 2014. Precuneus is a functional core of the default-mode network. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 34(3), pp.932–940.
- Veer, I.M. et al., 2011. Beyond acute social stress: increased functional connectivity between amygdala and cortical midline structures. *NeuroImage*, 57(4), pp.1534–1541.
- Veer, I.M. et al., 2010. Whole brain resting-state analysis reveals decreased functional connectivity in major depression. *Frontiers in systems neuroscience*, 4, p.10.3389/fnsys.2010.00041. eCollection 2010.
- Verhage, F., 1964. *Intelligence and age: Study with Dutch people from age 12 to 77*. Van Gorcum, Assen, The Netherlands.
- De Vico Fallani, F. et al., 2014. Graph analysis of functional brain networks: practical issues in translational neuroscience. *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 369(1653), p.10.1098/rstb.2013.0521.
- Vos, P.E. et al., 2002. EFNS guideline on mild traumatic brain injury: report of an EFNS task force. *European journal of neurology : the official journal of the European Federation of Neurological Societies*, 9(3), pp.207–19. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/11985628>.
- Vos, P.E. et al., 2012. Mild traumatic brain injury. *European journal of neurology : the official journal of the European Federation of Neurological Societies*, 19(2), pp.191–198.
- Vossel, S., Geng, J.J. & Fink, G.R., 2014. Dorsal and ventral attention systems: distinct neural circuits but collaborative roles. *The Neuroscientist : a review journal bringing neurobiology, neurology and psychiatry*, 20(2), pp.150–159.
- Wäljas, M. et al., 2014. A Prospective Biopsychosocial Study of the Persistent Post-Concussion Symptoms Following Mild Traumatic Brain Injury. *Journal of neurotrauma*, 547, pp.1–54. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25363626>.

- Ward, A.M. et al., 2014. The parahippocampal gyrus links the default-mode cortical network with the medial temporal lobe memory system. *Human brain mapping*, 35(3), pp.1061–1073.
- Wechsler, D., 2001. *Wechsler Adult Intelligence Scale III, WAIS-III-NL*, Amsterdam (The Netherlands): Pearson Assessment and Information B.V.
- Weissman, D.H. et al., 2006. The neural bases of momentary lapses in attention. *Nature neuroscience*, 9(7), pp.971–978.
- Whitfield-Gabrieli, S. & Ford, J.M., 2012. Default mode network activity and connectivity in psychopathology. *Annual review of clinical psychology*, 8, pp.49–76.
- Whittaker, R., Kemp, S. & House, A., 2007. Illness perceptions and outcome in mild head injury: a longitudinal study. *Journal of neurology, neurosurgery, and psychiatry*, 78(6), pp.644–646.
- Whittle, S. et al., 2011. Sex differences in the neural correlates of emotion: evidence from neuroimaging. *Biological psychology*, 87(3), pp.319–333.
- van Wijk, B.C., Stam, C.J. & Daffertshofer, A., 2010. Comparing brain networks of different size and connectivity density using graph theory. *PLoS one*, 5(10), p.e13701.
- Willer, B. & Leddy, J.J., 2006. Management of concussion and post-concussion syndrome. *Current treatment options in neurology*, 8(5), pp.415–426.
- Wilson, J.T., Pettigrew, L.E. & Teasdale, G.M., 1998. Structured interviews for the Glasgow Outcome Scale and the extended Glasgow Outcome Scale: guidelines for their use. *Journal of neurotrauma*, 15(8), pp.573–585.
- Wood, R.L., 2004. Understanding the “miserable minority”: a diathesis-stress paradigm for post-concussional syndrome. *Brain injury : [BI]*, 18(11), pp.1135–1153.
- Wylie, G.R. et al., 2015. Cognitive Improvement after Mild Traumatic Brain Injury Measured with Functional Neuroimaging during the Acute Period. *PLoS one*, 10(5), p.e0126110.
- Yang, Y., Kircher, T. & Straube, B., 2014. The neural correlates of cognitive behavioral therapy: Recent progress in the investigation of patients with panic disorder. *Behaviour Research and Therapy*, 62, pp.88–96. Available at: <http://dx.doi.org/10.1016/j.brat.2014.07.011>.

- Yuan, W., Wade, S.L. & Babcock, L., 2015. Structural connectivity abnormality in children with acute mild traumatic brain injury using graph theoretical analysis. *Human brain mapping*, 36(2), pp.779–792.
- Yuh, E.L. et al., 2013. Magnetic resonance imaging improves 3-month outcome prediction in mild traumatic brain injury. *Annals of Neurology*, 73(2), pp.224–235.
- Zalesky, A., Fornito, A. & Bullmore, E.T., 2010. Network-based statistic: identifying differences in brain networks. *NeuroImage*, 53(4), pp.1197–1207.
- Zhong, M. et al., 2011. Amygdala hyperactivation and prefrontal hypoactivation in subjects with cognitive vulnerability to depression. *Biological psychology*, 88(2–3), pp.233–242.
- Zhou, Y. et al., 2012. Default-mode network disruption in mild traumatic brain injury. *Radiology*, 265(3), pp.882–892.
- Zhu, D.C. et al., 2015. A Potential Biomarker in Sports-Related Concussion: Brain Functional Connectivity Alteration of the Default-Mode Network Measured with Longitudinal Resting-State fMRI over Thirty Days. *Journal of neurotrauma*, 32(5), pp.327–341.
- Zigmond, A.S. & Snaith, R.P., 1983. The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, 67(6), pp.361–370.