Jared Cooney Horvath

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<u>Overview</u>

I am an educator and researcher with expertise in the areas of cognitive neuroscience, biological psychology, brain stimulation, the learning sciences, and effective teaching/learning practices. I have taught in over 100 schools internationally and work closely with several Australian Independent and Catholic School departments. My current research focuses on effectively translating neurological and psychological principles to impact teaching and learning within the classroom and online environments. I am particularly interested in linking effective teaching strategies with specific learners in order to engender deep learning and conceptualization. I have lectured and taught on a wide array of cognitive psychological and educational topics, including attention, memory, engagement, and assessment.

H-Index: 15 Citation Count: 1,228

Educational History

University of Melbourne, Melbourne, VIC (Australia). 2012-2016

- PhD
- Program: Cognitive Neuroscience

Harvard University, Cambridge, USA 2009-2010

- MEd with Honors (magna cum-laude)
- Program: Mind, Brain, and Education

University of Melbourne, Melbourne, VIC (Australia). 2015-2016

- Graduate Certificate
- Program: University Teaching

University of Southern California, Los Angeles, USA 2000-2004

- BA with Honors (cum-laude)
- Major: Cinema/Television Production Minor: Architectural History

Academic Honors & Awards

Dean's Award for Excellence in a PhD Thesis, University of Melbourne (2017)

Australia Award – Endeavour Scholarship, Australian Government: Dept. of Education (2012-2016)

Speaker's University Challenge: Bronze Medal, Australian Government, Canberra (2014)

University of Melbourne 3 Minute Thesis: Bronze Medal, Uni. Of Melbourne (2014)

MIRS, MIFRS, University of Melbourne (2012-2016)

Dean's List, Harvard University (2010)

Renaissance Scholar Distinction, University of Southern California (2004)

Resident Honors Inductee, University of Southern California (2004)

Thematic Options Advanced Scholar Recognition, University of Southern California (2004)

Dean's List, University of Southern California (2002 and 2003)

Golden Key Honor Society Inductee (2002)

Presidential Scholarship, University of Southern California (2000-2004)

Early Graduate Honors Program, University of Southern California (2000)

Research Honors & Awards

Dean's Award for Excellence in a PhD Thesis, University of Melbourne (2017)

Best Poster Award, Science of Learning Conference, Melbourne (2015)

#1 Altmetric Score of (of 328), Brain Stimulation (2015)

#3 Altmetric Score (of 1,541), Neuropsychologia (2015)

Student Travel Award, International Conference on Cognitive Neuroscience (2014)

Student Travel Award, Australasian Cognitive Neuroscience Conference (2013)

Outstanding Presenter Award, Melbourne PhD Student Conference (2013 and 2014)

Professional Travel Award, Entertainment Software & Cognitive Neurotherapeutics Soc. (2011)

Special Training

- Intensive Course in Transcranial Magnetic Stimulation (TMS), Harvard Medical School (2010)
 - Dir: Alvaro Pascual-Leone, MD, PhD & Dylan Edwards, PhD
- EEG/ERP Intensive, Harvard University (2009-2010)
 - Dir: Jennifer Thomson, PhD
- Principles & Practice of Clinical Research, Harvard Medical School (2010) - Dir: Felipe Fegni, MD, PhD & Lauren Dewey-Platt, PhD
- Intro to Transcranial Direct Current Stimulation (tDCS), Harvard Medical School (2010) - Dir: Alvaro Pascual-Leone, MD, PhD & Felipe Fregni, MD, PhD
- Intro to the Clinical Practice of TMS, Harvard Medical School (2010)
 - Dir: Dan Press, MD & Alvaro Pascual-Leone, MD, PhD

Current Positions

Post-Doctoral Researcher

- Science of Learning Research Center at MGSE, Melbourne, VIC (2015-2018)
 - Conducting research exploring the impact of varied digital media on learning, comprehension, and neural activity.
 - Co-developing and testing translation material to connect educators at all levels with the latest relevant neuroscience/psychology research.
 - Co-supervising 3 doctoral students.
 - Co-developing a Master's Program in Educational Neuroscience to be offered at Uni. Melbourne and Uni. Queensland.
 - Developed and am teaching a semester long Master's Capstone called "Educational Neuroscience".

Honorary Research Fellow

- <u>St. Vincent's Hospital</u>, Melbourne, VIC (2012-Present)
 - Co-developed and conducting/supervising research exploring the effects of surgical resection on neural dynamics in varied forms of epilepsy.
 - Co-developed and conducting/supervising research exploring the predictive efficacy of non-invasive brain stimulation on medication and surgical outcomes in varied forms of epilepsy.
 - Co-developed and conducting/supervising research exploring the re-formation of cortical motor maps in hand-transplant patients.
 - Co-developed and conducting/supervising research exploring cortical dynamics of BDD patients during the course of therapy.

Lecturer

- <u>University of Melbourne</u>, Melbourne, VIC. (May 2012 2017)
 - Developed and presented lectures for PhD coursework (*Cognitive Neuroscience*: Dept. of Anatomy & Neuroscience).
 - Developed and presented lectures for Masters coursework (*Neuropsychology*: School of Psychological Sciences).
 - Developed and presented lectures for Honors coursework (*Behavioral Neuroscience*: School of Psychological Sciences).

Principal Investigator

- <u>The Science of Learning Group</u>, Cambridge, MA. (April 2009 Present)
 - Developed and conducted research testing the efficacy of embodied priming on information retention and conceptualization.
 - Developed and conducted research exploring dual-coding on memory formation and consolidation.

Prior Research Experience

Principal Investigator

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- Breaking the Curve, Seattle, WA. (2007-2009)
 - Developed and tested the efficacy of college preparatory program.

Researcher

- <u>The Cognitive Neuroscience Lab</u>, Melbourne, AU. (Jan 2012 June 2014) *Advisors*: Dr. Jason D. Forte & Dr. Olivia Carter
 - Developed and conducted research exploring the neurophysiological and behavioral efficacy of Transcranial Direct Current Stimulation (tDCS).

<u>Evolution and Social Cognition Laboratory</u>, Cambridge, MA. (June 2009 – Aug 2010) *Advisor*: Dr. Steven Pinker

Lead Investigators: Kyle Thomas & Chris Nocera

- Assisted LI on project design, effective stimuli programming, data gathering, and statistical analysis.
- Focus: The effects of embodied cognition and effective metaphor priming on perception and judgment.
- <u>Emotional Regulation and Adversity Lab</u>, Cambridge, MA. (Oct 2008 Dec 2009) Advisor: Dr. George Vaillant
 - Lead Investigator: H'Sien Hayward
 - Assisted LI with theory generation, data entry, statistical analysis, and future study development.
 - Focus: Do positive memory biases predict improved emotion regulation after adversity? An eight-year longitudinal study.

Research Assistant

- <u>BA Center for Noninvasive Brain Stimulation</u>, Boston, MA. (Dec 2009 Dec 2011) *Director*: Dr, Alvaro Pascual Leone, MD, PhD
 - Assist with protocol development, study conduction, and article generation
 - Focus: Transcranial Magnetic Stimulation and Transcranial Direct Current Stimulation to explore neurological and psychological pathologies as well as educational implications.
- <u>Morality Development Lab</u>, Cambridge, MA. (June 2009 Dec 2011)
 Advisor: Dr. Paul Harris
 Lead Investigator: Karen Hussar
 - Assisted with literature review, data analysis, statistical review, and article generation (2009-Present).
 - Focus: The ontogenesis of environmental morality in children aged 6-10.

<u>Grants</u>

- Hattie, J.A.C., Graham, L., Horvath, J.C., et al. (2016). Foundations of human learning: A neuroscientific approach to teaching, learning, and learning interventions. University of Melbourne Learning & Teaching Initiative. Chief-Investigator. \$35,000.
- Lodge, J.M., **Horvath, J.C**., Corrin, L., et al. (2016). Pedagogical and production strategies that support student learning. *University of Melbourne Learning & Teaching Initiative*. Chief-Investigator. \$27,917.
- Lodge, J.M., Horvath, J.C., Horton, A., De Barba, P., & Kennedy, G. (2016). Evaluating educational videos for effective engagement and learning. *Melbourne Graduate School of Education Seed Funding*. Chief-Investigator. \$5,988.

Publications: Books & Book Length Manuscripts

- Horvath, J.C. (2019). Stop Talking; Start Influencing: 12 Brain Principles to Boost your Impact in the Boardroom, Classroom, and Locker Room. Sydney: Exisle Publishing.
- Horvath, J.C., Lodge, J., & Hattie, J.A. (Eds.). (2017). From the Laboratory to the Classroom. London: Routledge.
- Rotenberg, A., **Horvath, J.C**. & Pascual-Leone, A. (Eds.). (2014). *NeuroMethods: Transcranial Magnetic Stimulation*. New York: Springer Publishing Company.
- Edwards, D., Rotenberg, A., **Horvath, J.C**., & Pascual-Leone, A. (In Press). *Laboratory Handbook of Noninvasive Brain Stimulation*. New York: Springer Publishing Company.

Lodge, J. M., Horvath, J. C. & Corrin, L. (eds. – forthcoming). *From data and analytics to the classroom: Translating learning analytics for teachers.* Routledge (contracted – scheduled for 2018 release).

Publications: Manuscripts

- Horvath, J.C., Horton, A., Lodge, J.M., & Hattie, J.A.C. (2017). The impact of binge watching on memory and perceived comprehension. *First Monday*, 22(9), 1-7.
- Palghat, K. Horvath, J.C., & Lodge, J.M. (2017). The hard problem of 'educational neuroscience'. *Trends in Neuroscience and Education*, 6, 204-210.
- Horvath, J.C., Carter, O. & Forte, J.D. (2016). No significant effect of transcranial direct current stimulation (tDCS) found on simple motor reaction time comparing 15 different stimulation protocols. *Neuropsychologia*, 91, 544-552.
- Horvath, J.C., Vogrin, S.J., Carter, O., Cook, M.J., & Forte, J.D. (2016). Effects of a common transcranial direct current stimulation (tDCS) protocol on motor evoked potentials found to be highly variable within individuals over 9 testing sessions. *Experimental Brain Research*, 234, 2629-2643.
- Donoghue, G.M., & **Horvath, J.C.** (2016). Translating neuroscience, psychology, and education: an abstracted conceptual framework for the learning sciences. *Cogent Education*, 3(1), 1267422.
- **Horvath, J.C.,** & Donoghue, G.M. (2016). A bridge too far revisited: Reframing Bruer's neuroeducation argument for modern science of learning practitioners. *Frontiers in Psychology*, 7(377), 1-12.
- Horvath, J.C. (2015). Are current blinding methods for transcranial direct current stimulation (tDCS) effective in healthy populations? *Clinical Neurophysiology*, 126(11), 2045-2046.
- Horvath, J.C. (2015). New quantitative analyses following Price & Hamilton's critique do not change original findings of Horvath et al. *Brain Stimulation*, 8(3), 665-666.
- **Horvath, J.C.**, Forte, J.D., & Carter, O. (2015). Quantitative review finds no evidence of cognitive effects in healthy populations from single-session transcranial direct current stimulation (tDCS). *Brain Stimulation*, 8(3), 535-550.
- Horvath, J. C., Carter, O., & Forte, J. D. (2015). Evidence that transcranial direct current (tDCS) generates little-tono reliable neurophysiologic effect: a systematic review. *Neuropsychologia*, 66, 213-236.
- Horvath, J.C., Gray, Z., Schilberg, L., Vidrin, I., & Pascual-Leone, A. (2015). Action-effect congruence during observation motor learning leads to faster motor sequence learning. *Quarterly Journal of Experimental Psychology*, 68(11), 2200-2215.
- Horvath, J. C. (2014). The neuroscience of PowerPoint. Mind, Brain, & Education, 8(3), 137-143.
- Horvath, J. C., Carter, O., & Forte, J. D. (2014). Transcranial direct current stimulation: five important issues we aren't discussing (but probably should be). *Frontiers in Systems Neuroscience*, 8(2), 1-8.
- Brem, A.K., Fried, P.J., **Horvath, J.C.**, Robertson, E.M. & Pascual-Leone, A. (2014). Is neuroenhancement by noninvasive brain stimulation a net zero-sum proposition? *NeuroImage*, 85(3), 1058-1068.
- Bashir, S., Perez, J., Horvath, J.C., Pena-Gomez, C., Vernet, M...(2014). Differential effects of motor cortical excitability and plasticity in young and old individuals: a transcranial magnetic stimulation (TMS) study. *Frontiers in Aging Neuroscience*, 6(111), 1-22.

Horvath, J.C., Schilberg, L., & Thomson, J. (2013). Does sight predominate sound? Electrophysiological evidence for

multisensory mismatch negativity correlation. Neurophysiology, 45(6), 459-467.

- Hussar, K., & Horvath J.C. (2013). But you promised: Children's judgements of broken promises. *Psychology*, 4(12), 1046-1050.
- Bashir, S., Perez, J., Horvath, J.C., & Pascual-Leone, A. (2013). Differentiation of motor cortical representation of hand muscles by navigated mapping of optimal TMS current directions in health subjects. *Journal of Clinical Neurophysiology*, 30 (4), 390-395.
- Pascual-Leone, A., **Horvath, J.C.**, & Robertson, E.M. (2012). Enhancement of normal cognitive abilities through noninvasive brain stimulation. In *Cortical Connectivity* (Ed. Chen, R). Springer Scientific Press, 207-249.
- Pascual-Leone A, Freitas C, Oberman L, **Horvath JC**, Halko, M... (2012). Characterizing brain cortical plasticity and network dynamics across the age-span in health and disease with TMS-EEG and TMS-fMRI. *Brain Topography*, 24, 302-315.
- Hussar, K., Horvath, J.C., (2011). Do children play fair with Mother Nature? Understanding children's judgments of environmentally harmful actions. *Journal of Environmental Psychology, 31, 309-313*.
- Horvath, J.C., Perez, J., Forrow, L., Fregni, F., & Pascual-Leone, A. (2011). Transcranial magnetic stimulation: a historical evaluation and future prognosis of therapeutically relevant ethical concerns. *J Med Ethics*, 37, 3, 137-143.
- Horvath, J.C., Mathews, J., Demitrack, M.A., & Pascual-Leone, A. (2010). The NeuroStar TMS device: conducting the FDA approved protocol for treatment of depression. *J Vis Exp.* <u>http://www.jove.com/index/details.stp?id=2345</u>, doi:10.3791/2345.
- Halko, M.A., Eldaief, M.C., **Horvath, J.C.**, & Pascual-Leone, A. (2010). Combining transcranial magnetic stimulation and fMRI to explore the default mode network. *J Vis Exp.* <u>http://www.jove.vom/index/details.stp?id=2271</u>, doi: 10.3791/2271.
- Oberman, L., **Horvath, J.C.**, & Pascual-Leone, A. (2010). TMS: using the theta-burst protocol to explore mechanisms of plasticity in individuals with fragile X syndrome and autistic spectrum disorder. *J Vis Exp*. <u>http://www.jove.vom/index/details.stp?id=2272</u>, doi: 10.3791/2272.
- Najib, U., **Horvath, J.C.**, Silvanto, J., & Pascual-Leone, A. (2010). State-dependency effects on TMS: a look at motive phosphene behavior. *J Vis Exp*. <u>http://www.jove.com/index/details.stp?id=2273</u>, doi: 10.3791/2273.

Publications: Book Chapters

- Horvath, J.C., Lodge, J.M. (2017). A framework for organizing and translating research in the learning sciences. In J. C. Horvath, J. M. Lodge, & J. A. C. Hattie (eds.). From the laboratory to the classroom: Translating learning sciences for teachers. Routledge.
- Lodge, J. M., & **Horvath, J. C.** (2017). Science of learning and digital learning environments. In J. C. Horvath, J. M. Lodge, & J. A. C. Hattie (eds.). *From the laboratory to the classroom: Translating learning sciences for teachers*. Routledge.
- Horvath, J. C., Lodge, J. M., & Hattie, J. A. C. (2017). Introduction. In J. C. Horvath, J. M. Lodge, & J. A. C. Hattie (eds.). *From the laboratory to the classroom: Translating learning sciences for teachers*. Routledge.
- Horvath, J.C., Najib, U., & Press, D. (2014). Transcranial magnetic stimulation (TMS) clinical applications: therapeutics. In *Neuromethods: TMS* (Eds. Rotenberg, A., Horvath, J.C., & Pascual-Leone, A.). Springer Publishing Company.
- Brem, A.K., Horvath, J.C., & Pascual-Leone, A. (2014). Noninvasive brain stimulation in cognitive rehabilitation:

Guiding plasticity after injury to the CNS. In *Textbook of Neural Repair and Rehabilitation: Volume 2, Medical Neurorehabilitation 2nd Edition* (Eds. Selzer, M., Clarke, S., Cohen, L. et al.). Cambridge University Press.

- Najib, U., & Horvath, J.C. (2014). Transcranial magnetic stimulation (TMS) safety considerations and recommendations. In *Neuromethods: TMS* (Eds. Rotenberg, A., Horvath, J.C., & Pascual-Leone, A.). Springer Publishing Company.
- Rotenberg, A., **Horvath, J.C.,** & Pascual-Leone, A. (2014). The transcranial magnetic stimulation (TMS) device and foundational techniques. In *Neuromethods: TMS* (Eds. Rotenberg, A., Horvath, J.C., & Pascual-Leone, A.). Springer Publishing Company.
- Pascual-Leone, A., **Horvath, J.C.**, & Robertson, E.M. (2012). Enhancement of normal cognitive abilities through noninvasive brain stimulation. In *Cortical Connectivity* (Ed. Chen, R). Springer Scientific Press, 207-249.
- Horvath, J.C., Perez, J., Forrow, L., Fregni, F., & Pascual-Leone, A. (2011). Transcranial magnetic stimulation: future prospects and ethical concerns in treatment and research. In *Neuroethics in Practice* (Eds. Chatterjee, A, & Farah, M.). Oxford University Press.
- Horvath, J.C., Pascual-Leone, A., & Fregni, F. (2010). Transcranial direct current stimulation enhances working memory task performance in patients with alzheimer's disease. *The State of Brain Fitness*. July, 153-154
- Horvath, J.C., & Pascual-Leone, A. (2010). Paradoxical functional facilitation through transcranial magnetic stimulation. *The State of Brain Fitness*. July, 152.

Publications: Popular Press

- Horvath, J.C. (2017). How to help your children get through life after year 12. Huffington Post. 24 Nov, 2017.
- Horvath, J.C. (2017). Are teenagers crazy? Education Matters. 12 May, 2017.
- Horvath, J.C. (2017). Ask a cognitive scientist. ACCESS: The Journal of the Australian School Librarians Association. March 2017; June 2017; September 2017; March 2018
- Horvath, J.C., & Lodge, J.M. (2017). So, now you understand the brain...now what? Pursuit. 8 March, 2017.
- Horvath, J.C., Lodge, J., & Hattie, J.A.C. (2016). Confusion, error, & feedback: A successful learning triumvirate. Horizon: Thought Leadership. September, 2016.
- Horvath, J.C., & Donoghue, G.M. (2016). What causes mind blanks during exams? *The Conversation*. 26 October, 2016.
- Horvath, J.C., & Donoghue, G.M. (2015). So much talk about 'the brain' in education is meaningless. *The Conversation.* 7 September, 2015.
- Horvath, J.C., & Lodge, J. (2015). It's not PowerPoint's fault; you're just using it wrong. *The Conversation*. 26 June, 2015.
- Horvath, J.C. (2015). Brain stimulation and memory: How strong is the evidence? *Australasian Science (Cover Story)*. March, 2015.
- Horvath, J.C. (2015). Does brain training work? That depends on your purpose. *The Conversation*. 4 Feb, 2015.
- Horvath, J.C. (2015). When the hype doesn't pan out: On sharing the highs-and-lows of research with the public. *The Neuroethics Blog @ Emory University.* 3 Feb, 2015.
- Horvath, J.C. (2013). The replication myth: shedding light on one of science's dirty little secrets. *ScientificAmerican.Com.* Scientific American. 4 Dec, 2013.

Publications: Under Review / Preparation

- Horvath, J.C., Horton, A., Lodge, J.M. (Under Review). Spaced-Learning: Evidence for a Negative Impact of Bingeing Novel Information. *APS*.
- Lodge, J.M., **Horvath, J.C.**, & Horton, A. (In Preparation). The Attenborough Effect: High-Production Value in Educational Videos Improves Engagement but has No Effect on Learning or Memory.
- Lodge, J.M., **Horvath, J.C.**, & Horton, A. (In Preparation). The Inclusion of Dialogic Teaching Strategies in Educational Videos Improves Comprehension and Memory.
- **Horvath, J.C.**, Horton, A. (In Preparation). Spatial priming in an educational setting improves student conceptualization.
- Lodge, J. M., Horvath, J. C. & Corrin, L. (invited). Introduction. In J. M. Lodge, J. C., Horvath & L. Corrin (eds.). From data and analytics to the classroom: Translating learning analytics for teachers. Routledge.
- Donoghue, G. M., Lodge, J. M. & **Horvath, J. C.** (invited). Navigating the precarious journey from data and analytics to practice: A conceptual framework for translation. In J. M. Lodge, J. C., Horvath & L. Corrin (eds.). *From data and analytics to the classroom: Translating learning analytics for teachers.* Routledge.

Selected Presentations: Oral (Scientific)

- Melbourne, Australia. Australian Association for Research in Education (AARE). Myth-Busting with the Science of Learning: Videos in Education. 29 November, 2016.
- Singapore. 1st International Brain Stimulation Conference. *Transcranial Direct Current Stimulation Demonstrates* Little-to-No Reliable or Significant Effect on Any Cognitive/Behavioral or Neurophysiologic Outcome Measure: A Comprehensive Meta-Analysis. 3 March, 2015.
- Melbourne, Australia. Australasian Society for Cognitive Science Conference. Transcranial Direct Current Stimulation Does Not Demonstrate a Reliable or Significant Effect on Any Cognitive/Behavioral Measure: A Comprehensive Meta-Analysis. 12 December, 2014.
- Melbourne, Australia. UoM Psychological Sciences Colloquium. Does tDCS Demonstrate a Reliable Neurophysiological, Cognitive, or Behavioral Effect? A Sobering Look at Noninvasive Brain Stimulation. 15 September 2014.
- Barcelona, Spain. SharpBrains Research Exchange Program. Emerging Clinical Tools (Neurofeedback, TMS, tDCS). 7 June, 2011.

Selected Presentations: Posters (Scientific)

- Mellow, P., Lodge, J. M., **Horvath, J. C.**, Corrin, L., Horton, A. & Batur, S. (2017). *Creating a better educational video experience for students learning*. University of Melbourne Teaching & Learning Conference, Melbourne. (poster & presentation)
- Mellow, P., Lodge, J., **Horvath, J.C.**, Corrin, L., Horton, A., Batur, S., & Morris, J. (2017). *Creating a better educational video experience for learning*. The Higher Education Technology Agenda Conference. Auckland, NZ. May 2017.
- Palghat, K., **Horvath, J. C.**, & Lodge, J. M. (2016). *The hard problem of 'educational neuroscience'*. 2016 Australian Association of Philosophy Conference. Melbourne. July 2016.

- Brooker, A., Lodge, J.M., & **Horvath, J.C.** (2015).*Translating science of learning research into effective designs for learning: A case study on the use of visual aids in teaching practice.* Higher Education Research & Development Conference. Melbourne. July 2015.
- **Horvath, J.C.**, Forte, J.D., & Carter, O. (2015). *Effects of transcranial direct current stimulation on motor evoked potential amplitude are neither reliable nor significant within individuals over 9 separate testing sessions*. 1st International Brain Stimulation Conference. Singapore. March 2, 2015.
- Horvath, J.C., Forte, J.D., & Carter, O. (2014). Transcranial Direct Currents Stimulation (tDCS) With an M1 / Orbitofrontal Montage shows No Effect on Simple Visual Motor Reaction Time. International Conference on Cognitive Neuroscience. Brisbane, AU. July 27, 2014.
- Horvath, J.C., Forte, J.D., & Carter, O. (2013). Transcranial Direct Currents Stimulation (tDCS) over Bi-lateral Motor Cortices shows No Effect on Simple Visual Motor Reaction Time. Australasian Cognitive Neuroscience Conference. Melbourne, AU. Nov. 30, 2013.
- Forte, J.D., Horvath, J.C., & Carter, O. (2013). Response Time Effects of Transcranial Direct Current Stimulation over Primary Motor Cortex are Unreliable Between and Within Subjects. Society for Neuroscience Conference. San Diego, CA. Nov. 13, 2013.
- Horvath, J.C., Schilberg, L., Vidrin, I., Gray, Z., & Pascual-Leone, A. (2011). *The Effects of Auditory Environment on Observational Motor Learning*. Entertainment Software and Cognitive Neurotherapeutics Society Meeting. San Fransisco, CA. Sep 19.
- Horvath, J.C., Nocera, C.C, & Garner, H. (2010). Spatial Priming in an Educational Setting Improves Student Conceptualization & Exam Performance. Association for Psychological Science (APS) Convention. Boston, MA. May 29.
- Lodge, J. M., Mellow, P. Horvath, J. C., Corrin, L., Horton, A. & Batur, S. (forthcoming). Creating a better video experience for student learning. 40th Annual Conference of the Higher Education Research & Development Society Australasia, Sydney..
- Lodge, J. M., **Horvath, J. C.**, Horton, A., Venema, S., Kennedy, G. & Dawson, S. (forthcoming). *Designing videos for learning: Separating the good from the bad and the ugly*. EARLI Conference, 2017, Tampere, Finland.

Invited Keynote Presentations

Sydney, Australia. Positive Classrooms Conference. "The Power of Stories." June 8, 2018.
Sydney, Australia. Recruitment Yarns Conference. "Retaining Employees." June 5, 2018.
Melbourne, Australia. Positive Classrooms Conference. "The Power of Stories." June 1, 2018.
Freemantle, Australia. Positive Classrooms Conference. "The Power of Stories." May 25, 2018.
Melbourne, Australia. Recruitment Yarns Conference. "Retaining Employeesr." May 25, 2018.
Melbourne, Australia. Recruitment Yarns Conference. "Retaining Employeesr." May 22, 2018.
Melbourne, Australia. CPA Educators Congress. "The Neuroscience of PowerPoint." May 21, 2018.
Sydney, Australia. Independent School Leaders Conference. "The Learning Trajectory." May 20, 2018.
Brisbane, Australia. Positive Classrooms Conference. "The Power of Stories." May 18, 2018.

Bangalore, India. International Schools Conference. "Authentic Engagement." March 7, 2018. Melbourne, Australia. Certified Public Accountant Education Conference. "Learning Trajectory." Feb 12, 2018 Hong Kong, China. China/Australia International Schools Congress. "The Science of Learning." Jan 21, 2018. Perth, Australia. Professional Learning Conference. "Attention, Memory, and Feedback." Feb 2, 2018. Melbourne, Australia. Nurse Education Forum. "The Art of Adult Learning." Dec 14, 2017. Sydney, Australia. Evidence-Based Teaching Conference. "Brain, Mind, Education: What's the Link?" Oct 12, 2017. Sydney, Australia. The AIS Conference. "Reconceptualizing Assessment for 21st Century Learners." Sep 4, 2017. Melbourne, Australia. Teaching Adolescent Girls Conference. "Emotions in Co-Ed Environments." Sep 2, 2017. Melbourne, Australia. The National Education Summit. "Deep Learning and Transfer." Sep 1, 2017. Melbourne, Australia. The 6th Cultures of Thinking Conference. "Brains, Concepts, and Mindsets." Aug 25, 2017 Sydney, Australia. Happiness & its Causes. "The Power of Story on learning & Perception." June 22-23, 2017. Adelaide, Australia. The Wellbeing Classroom Conference. "Stories, Psychology, and Wellbeing." June 15, 2017. Gold Coast, Australia. An Evening with Arrowsmith. "The Impact of our Stories on our Learning". March 9, 2017. Melbourne, Australia. Kingswood IB Exhibition. "Genetic Equality – Are we Born This Way?" Oct 18, 2016. Adelaide, Australia. The Wellbeing Classroom Conference. "The Neuroscience of Storytelling." June 29, 2016. Sydney, Australia. Australian School Librarians Conference. "Technology, The Brain, & Education." April 29, 2016. Sydney, Australia. Mind & its Potential Conference. "Why Brain Training Doesn't Work." Oct 27, 2015.

Invited Presentations

Sydney, Australia. Independent Schools NSW Future Ed Conference. "Cognitive Load." June 14, 2018.
Townsville, Australia. Townsville Catholic Ed Leadership Conference. "The Learning Trajectory." April 16, 2018.
Perth, Australia. AHRI Human Resources Western Conference. "The Neuroscience of PowerPoint." April 9, 2018.
Sydney, Australia. Brigidine Welcome Conference. "Science of Learning." Jan 29, 2018.
Sydney, Australia. The Shore School Welcome. "The Story of Assessment." Jan 24, 2018.
Hong Kong, China. Australia International School. "Aligning Assessment with Learning Outcomes." Jan 22, 2018.
Brisbane, Australia. Brisbane State High School Conference. "Science of Learning." Jan 18, 2018.
Melbourne, Australia. Beaconhills High Teacher Conference. "Big Ideas in Education." Dec. 13, 2017.
Singapore. International Baccalaureate Workshops. "The Learning Trajectory." Dec 5-7, 2017.
Perth, Australia. Department of Education. "The Neuroscience of PowerPoint." Nov 29, 2017.
Perth, Australia. AHRI Human Resources Conference. "The Neuroscience of PowerPoint." Oct 9, 2017.

Sydney, Australia. The AIS Conference. "Aligning Assessment with Learning Outcomes." Sep 5, 2017.

Perth, Australia. Pearson Working Memory Conference. "What is Working Memory?" August 17, 2017.

Sydney, Australia. Pearson Working Memory Conference. "What is Working Memory?" August 15, 2017.

Sydney, Australia. EduTech International Congress. "The Brain and Digital Learning." June 8-9, 2017.

Brisbane, Australia. Brisbane Catholic Education Conference. "The Brain and Wellbeing." May 8, 2017.

Bendigo, Australia. Catholic Education New Teacher Symposium. "The Basics of Human Learning." May 5, 2017.

Melbourne, Australia. Pearson Learning & Teaching Conference. "The Myth of Genius." November 18, 2016.

Melbourne, Australia. Bastow Institute. "Mistakes, Errors, and Feedback in Education." November 17, 2016.

Melbourne, Australia. University of Melbourne. "Video Killed the Lecturer? A Systematic Analysis of Video Use in Higher Education." September 21, 2016.

Melbourne, Australia. Ardoch Youth Foundation. *"Implementing Cultures of Thinking in the Business World.*" July 14, 2016.

Sydney, Australia. Castle Hill HS Conference. "Why do We Teach?" October 14, 2016.

Melbourne, Australia. The Wellbeing Conference: It's Time to Engage. *"Attention and Engagement within the Classroom."* August 22, 2016.

Sydney, Australia. Cherrybrook Technology High School. "Re-Assessing Technology in Education." July 18, 2016.

Melbourne, Australia. Ardoch Youth Foundation. "Learning Styles & Differentiated Curriculum." July 14, 2016.

Melbourne, Australia. University of Melbourne. "Attention and Memory in the Classroom." June 4, 2016.

Brisbane, Australia. University of Brisbane. "Neuroanatomy: A Primer." June 27, 2016.

Perth, Australia. Two Rocks Primary School. "Making Sense of Educational Neuroscience." April 25, 2016.

Melbourne, Australia. Lowther Hall Anglican Grammar School. "Memory in the Classroom." December 12, 2015

- *Melbourne, Australia.* State Education Conference. *"Brain Training in Education: What can we Meaningfully Expect?"* December 7, 2015.
- Auckland, New Zealand. Australian Cognitive Neuroscience Society Conference. "The Theoretical Mechanisms of Transcranial Magnetic Stimulation." November 23, 2015.

Gold Coast, Australia. Pearson Learning & Teaching Conference. "The Brain in the Classroom." November 6, 2015.

Gold Coast, Australia. Pearson Learning & Teaching Conference. "Attention & memory in the Classroom." November 5, 2015.

Melbourne, Australia. Peter MacCallum Cancer Center. "The Neuroscience of PowerPoint." July 31, 2015.

Brisbane, Australia. Eden's Landing State School. "The Role of Science in Education: Can the Two Work Together?" July, 29, 2015.

Melbourne, Australia. University of Melbourne. "Attention and Memory in the Classroom." June 30-July 1, 2015.

Brisbane, Australia. University of Brisbane. "Neuroanatomy: A Primer." June 25-26, 2015.

Brisbane, Australia. One Channel. "Brain Development: Form & Function." XXX

Melbourne, Australia. Moreland Primary School. "Coming to grips with Numbers and Mathematics." May 7, 2015.

- Melbourne, Australia. University of Melbourne: Anatomy & Neuroscience Colloquium. "The Neuroscience of PowerPoint." March 27, 2015.
- *Melbourne, Australia.* Moreland Primary School. *"An Introduction to the Brain: Form & Function."* March 21, 2015.
- Melbourne, Australia. Victorian Association for Philosophy in Schools. "Consciousness in the Brain." April 18, 2015.
- Melbourne, Australia. Center for Higher Education Research. "The Neuroscience of PowerPoint." March 11, 2015.
- Melbourne, Australia. University of Melbourne. "The Philosophy of Science: What is the True Role of a Scientist?" Aug 15, 2014
- *Melbourne, Australia*. Victorian Association for Philosophy in Schools. *"Materialism and Consciousness.*" May 18, 2014.
- *Melbourne, Australia*. University of Melbourne. *"TMS in Cognitive Neuroscience."* May 18, 2012; May 24, 2013; April 4, 2014.

Melbourne, Australia. Savage Club. "The Modern Myth: Science, Research, and Storytelling." March 3, 2014.

Melbourne, Australia. St. Aloysius College. "Adapting Neuroscience to Teaching Practices." February 4, 2013.

- Boston, MA. Harvard Medical School. "TMS in Cognitive & Behavioral Research." June 16, 2011.
- Melbourne, Australia. Melbourne Royal Art Fair Alison Kelly Gallery. "What Can Art Teach Us About Science? Historical Perspectives and Modern Ideas." August 5, 2010.

Andover, MA. Philips Academy. "An Introduction to the Learning Brain: Form and Function." August 1, 2010.

Boston, MA. Harvard Medical School. "The Neuroscience of PowerPoint." July 28, 2010.

Putney, VT. The Putney School. "Working memory in Adolescence: Implications for the Classroom." May 20, 2010.

Denver, CO. Cherry Creek School District. "Attention in Learning: How it Works and Why it Fails." May 2, 2010.

<u>Media Appearances</u>

Newspaper/Magazine:

- <u>The Age</u>. Probing the Science of Learning. May 20, 2018.
- <u>The Telegraph (London)</u>. *Make the Streaming Stop: The Case against Netflix*. Feb 23, 2018
- <u>The Australian Financial Review</u>. *Memory & Reading*. Feb 13, 2018.
- <u>Scientific American</u>. Brain-Stimulation is all the Rage But may not Stimulate the Brain. Feb 6, 2018
- <u>The Atlantic</u>. Why we Forget Most of the Books we Read. Jan 27, 2018
- <u>AV Club</u>. Bingeing is the Worst Way to Watch TV. Jan 27, 2018
- <u>CMO Magazine</u>. Developing Brand Experiences that Stick. Dec 13, 2017.

- Huffington Post. Help your Children get through Life after Year 12. Nov 23, 2017
- Herald Sun. Practical VCE Study Tips for Students. Oct 22, 2017
- <u>The New Daily</u>. *Netflix says Australians are Binge-Racing in One Day*. Oct 18, 2017
- Marketing Magazine. Friction vs Seamlessness. Oct 16, 2017
- Herald Sun. Expert Advises how to Handle Stress on VCE Exams. Oct 7, 2017
- <u>SBS Online</u>. Binge-Watchers Enjoy TV Shows Less: Study. Sep 14, 2017
- <u>Life Hacker</u>. This Study is Trying to Ruin your Precious Binge Watching. Sep 12, 2017.
- <u>Gizmodo</u>. How to Binge-Watch Without Hurting your Health. Sep 12, 2017.
- <u>VICE Motherboard</u>. *Binge watching TV makes it less enjoyable*. Sep 6, 2017.
- <u>Sydney Morning Herald</u>. Could a Zap to Your Head be Dynamite for your Brain Power? July 16, 2017.
- <u>Men's Journal</u>. *Brain training: Are we overthinking it?* April, 2017.
- <u>Campus Review</u>. *Could exams be as stressful as a bear attack?* November 1, 2016.
- <u>New York Observer</u>. The business of zapping brains with electricity heats up. April 15, 2016.
- <u>The Australian</u>. *Handwriting makes a comeback, outperforming laptops in memory retention*. April 9, 2016.
- <u>Medical Daily</u>. Brain stimulation & you: how does it work and can it really juice up your thinking cap? April 8, 2016.
- <u>VICE Motherboard</u>. The science and snake oil of neurostimulation. March 12, 2016
- <u>Nature</u>. 'Brain doping' may improve athletes' performance. March 11, 2016.
- <u>The New York Times</u>. *Therapy borne on electrical currents*. May 4, 2015.
- <u>The New Yorker</u>. *Electrified: Adventured in tDCS*. April 6, 2015
- <u>The Age</u>. DIY neuroscientists use direct-current devices to shock their way to happiness. March 21, 2015.
- <u>New Scientist</u>. Brain training may help people with ADHD to focus. March 20, 2015
- <u>The Economist</u>. This is how to DIY hack your brain using a bundle of electronics. March 9, 2015.
- <u>The Economist</u>. *Hacking your brain*. March 7, 2015.
- <u>New Scientist</u>. Second blow to head for the effects of brain zapping. 25 Jan. 2015
- IEEE Spectrum. Brain hackers beware: Scientist says tDCS has no effect. 21 Jan. 2015
- <u>New Scientist.</u> Has the brain-zap backlash begun? 28 Nov. 2014
- <u>Wired.</u> Read this before zapping your brain. 20 Jan. 2014
- <u>Herald Sun.</u> Students learn the power of positive thinking. 21 Jul. 2012

Radio/PodCast:

- <u>Radio National (RN: Australia)</u>. *Outsourcing our Brain to Digital Devices*. Feb. 26, 2018.
- <u>ABC Radio Perth</u>. *The Forgetting Curve*. Feb 20, 2018.
- <u>Newstalk: Dublin, Ireland</u>. *The Forgetting Curve*. Feb 1, 2018.
- ABC Radio Canberra. AC/DC and Mind-blanks. Nov 20, 2017.
- <u>ABC Radio Melbourne</u>. *How do People Recognize and Remember Faces*? Nov 9, 2017.
- <u>3RRR</u>. What's the Story? The Power of Narrative. Sep 27, 2017.
- <u>ABC Radio Adelaide</u>. Richmond Tigers v Adelaide Crows: The Dream Matchup. Sep 18, 2017.
- <u>ABC Radio Sydney</u>. *Binge-Watching and Memory*. Sep 15, 2017.
- <u>ABC Radio Melbourne</u>. *Binge-Watching, Sleep, and Memory*. Sep 15, 2017.
- <u>ABC Radio Hobart</u>. *Binge-Watching and Enjoyment*. Sep 14, 2017.
- <u>3AW Melbourne</u>. *Binge Watching Health*. Sep 14, 2017
- <u>ABC Radio Adelaide</u>. *Binge Watching, Memory, and Enjoyment*. Sep 14, 2017.
- <u>ABC Radio Canberra</u>. *Photographic Memory What's the Evidence?* August 29, 2017.
- <u>ABC Radio Melbourne</u>. *Deconstructing Learning and Memory*. July 19, 2017
- <u>Uni Melb Florey Institute PodCast</u>. 5 Things about the Teenage Brain. July 17, 2017
- ABC Radio Sydney. Binge Watching Bad for Enjoyment? June 26, 2017
- <u>ABC Radio Darwin</u>. *Binge Watching What is the Deal?* June 20, 2017
- ABC Radio Perth. Binge Watching Television Shows. June 19, 2017
- ABC Radio Melbourne. Binge Watching Bad for Memory. June 14, 2017
- <u>3RRR Grapevine</u>. *Mind Blanks*. November 7, 2016.
- <u>ABC Radio Adelaide</u>. *How to Prep for VCEs*. November 3, 2016.
- <u>Radio National Drivetime</u>. *Preparing for Exams*. October 31, 2016.
- <u>702 ABC Sydney</u>. What Causes Mind Blanks? October 27, 2016.
- <u>ABC Hobart Drive</u>. *Mind Blanks during Exams*. October 26, 2016.
- <u>2SER Saturday Breakfast</u>. *Make PowerPoint Work for You*. 27 June, 2015.
- <u>Nature Neuroscience PodCast.</u> *tDCS What's Going On?* 10 Feb. 2015.
- <u>2WEB Outback Radio.</u> *Does Brain-Training Work?* 9 Feb. 2015.
- <u>ABC Morning Breakfast.</u> *Does Brain Stimulation have an Effect?* 8 Oct. 2014.

- <u>3RRR Afternoon Show.</u> Presenting Science for Public Consumption. 11 Oct. 2014.
- <u>ABC Morning Breakfast.</u> *Teaching Students about their Brain.* 10 Feb. 2012.

Television:

- <u>The Daily Edition</u>. *The Psychology behind Memory & Forgetting*. March 19, 2018.
- <u>ABC News: Sydney</u>. *Binge-Watching, Enjoyment, and Memory*. Sep 14, 2017.
- <u>ABC Catalyst</u>. Brain stimulation. 6 Oct. 2015
- <u>Nova: Science Now</u>. *Magnetic mind control*. 2 Feb. 2011

Ongoing School Outreach / Embedded PD

Echuca, Australia. St. Mary's School. "Evidence in the Classroom." Ballarat, Australia. St. Michael's Primary. "The Science of Learning." Bendigo, Australia. St. Therese College. "Educational Leadership." Melbourne, Australia. Genazzano FCJ. "The Science of Learning." Bendigo, Australia. Victory Christian College. "Teaching and Learning Strategies." Melbourne, Australia. Oakleigh Grammar. "Engagement and Attention." Melbourne, Australia. Knox College. "Teaching Strategies and Evidence." Melbourne, Australia. Glen Waverly Primary. "Science of Learning Application." Sydney, Australia. Cherrybrook High School. "Technology in Education." Melbourne, Australia. Bialik College. "The Brain in the Classroom." Melbourne, Australia. Kingswood College. "Educational Neuroscience." Perth, Australia. Two Rocks Primary School. "The Brain in the Classroom." Melbourne, Australia. Lowther Hall. "Making Teaching Visible and Translatable." Melbourne, Australia. King David College. "The Brain & Wellbeing." Melbourne, Australia. Rosewood College. "Educational Neuroscience." Gold Coast, Australia. The Southport School. "Brain Training, Deep Learning, and Transfer."

Related Employment

Project Designer/Instructor, Independent Schools Victoria (Australia) 2016-Present

- Developed a teacher research program and have begun implementing in 3 schools.
- Trained teachers on research methodologies and Science of Learning.

Curriculum Developer/Instructor, St. Aloysius College, Melbourne, VIC (Australia) 2012-2016

- Developed and taught a 16 week neuroscience curriculum for 9th and 11th grade students
- Trained science instructors to teach neuroscience curriculum.

Lecturer/Tutor (TA), University of Melbourne, Melbourne, VIC (Australia). 2012-2014

- Senior Tutor (TA) for 2nd year Biological Psychology course
- Tutor (TA) for 2nd year Cognitive Psychology course
- Lecture: Neurostimulation in Cognitive Neuroscience for incoming Neuroscience postgraduates

Educational Coordinator, BA Center for Noninvasive Brain Stimulation, Boston, MA. 2010

- Developed and amended several TMS and tDCS methodology courses
- Aided in curriculum development, student recruitment, and administrative course tasks.

Curriculum Developer / Lecturer, The Education Neuroscience Initiative, Cambridge, MA. 2010

- Developed talks and seminars linking neuroscientific research to didactic practice.
- Lectured at educational institutions across the east coast, mid-west, and southern Australia.

Curriculum Developer, Veritas Tutors LLC, Cambridge, MA. 2009

- Developed and published complete GRE test prep curriculum
- Currently developing GRE Psychology specialty test prep curriculum

Curriculum Developer, Breaking the Curve LLC, Seattle, WA. 2007-2009

- Developed collegiate freshman-year prep curriculum
- Developed SAT test prep curriculum
- Trained current GRE, SAT and College Prep course instructors

Curriculum Developer/Tutor, Kaplan Pre-College, Los Angeles, CA. 2006-2007

- Developed updated SAT essay writing curriculum
- Trained new 2007 Southern California Kaplan teachers and tutors

Instructor/Tutor, Le Lycee International High School, Los Angeles, CA. 2007

- Taught 10th and 11th grade math, English, and writing classes

Medical Assistant/Intern, Kaiser Permanente, Denver, CO. 2005

- Shadowed two anesthesiologists
- Viewed and noted various operations/procedures
- Worked closely with patients in recovery

Teaching Experience

The Foundations of Human Learning, Melbourne, VIC (Australia)

- Approx 30 students / (ongoing)
- Melbourne Graduate School of Education

Science of Learning, Melbourne, VIC (Australia)

- Approx 120 students / (ongoing)
- Melbourne Graduate School of Education

Educational Neuroscience, Brisbane, QLD (Australia)

- Approx 150 students / (ongoing)
- Science of Learning Research Center at the University of Queensland

Educational Neuroscience, Melbourne, VIC (Australia)

- Approx 120 students / (ongoing)
- Science of Learning Research Center at the Melbourne Graduate School of Education

Cognitive Neuroscience, Melbourne, VIC (Australia)

- Approx 100 students / (ongoing)
- Bialik College

Biological Psychology, Melbourne, VIC (Australia)

- Approx 215 students / 3 years
- University of Melbourne School of Psychological Sciences

Cognitive Psychology, Melbourne, VIC (Australia)

- Approx 72 students / 1 year
- University of Melbourne School of Psychological Sciences

Cognitive Neuroscience, Melbourne, VIC (Australia)

- Approx 295 students / 4 years
- St. Aloysius College

TMS / tDCS Methodologies in Clinical and Neuroscientific Research, Boston, MA. 2009-2011

- Approx. 75 students per year / 2 years
- BA Center for Noninvasive Brain Stimulation @ Beth Israel Deaconess Medical Ctr

GRE Test Prep, Seattle, WA. 2008

- Approx. 45 student / 120 hours
- Breaking the Curve LLC

SAT Test Prep, Los Angeles, CA. 2007-2008

- Approx. 300 students / 900 hours
- Kaplan Pre-College

ACT Test Prep, Los Angeles, CA. 2007-2008

- Approx. 30 students / 40 hours
- Kaplan Pre-College

Algebra I & II, Los Angeles, CA. 2007

- Approx. 120 tenth and eleventh graders
- Le Lycee International High School

Geometry, Los Angeles, CA. 2007

- Approx. 40 eleventh graders
- Le Lycee International High School

Trigonometry, Los Angeles, CA. 2007

- Approx 25 eleventh graders
- Le Lycee International High School

English Literature and Writing, Los Angeles, CA. 2007

- Approx. 120 tenth and eleventh grader
- Le Lycee International High School

Advanced Techniques in Sound Design, Los Angeles, CA. 2005

- Approx. 12 students
- University of Southern California

Teacher's Assistant: Recording Sound for Film, Los Angeles, CA. 2004

- Approx. 20 students
- University of Southern California under Prof. Don Hall

Professional Affiliations

Article Reviewer

- Proceedings of the National Academy of Sciences (PNAS)
 - Neuroscience & Behavioral Reviews

- Epilepsia
- Behavioral Brain Research
- Cortex
- Neuropsychologia
- Clinical Neurophysiology
- American Journal of Bioethics
- Contemporary Educational Psychology
- Brain Stimulation
- Neuroscience
- Psychology
- Frontiers Group
- Developmental Medicine & Child Neurology
- The British Medical Journal (BMJ) Group
- JSM Burns and Trauma
- Geriatrics

Affiliate

- Australasian Cognitive Neuroscience Society, 2013-Present
- United Nations NGO Committee on Mental Health, 2009-Present
- American Psychological Association, 2009-2012
- American Psychological Society, 2009-2012
- Society of Personality and Social Psychology, 2009-2011
- Harvard University: Future of Learning Initiative, 2009-2011
- Golden Key Honor Society, 2004-Present
- National Society of Collegiate Scholars, 2004-Present

Advisory Board

- Journal of Global Education & Research, 2016-Present
- Quantitative Practice in Education, 2016-Present
- Art Beyond Sight Museum Education Institute, 2013
- Entertainment Software and Cognitive Neurotherapeutics Society, 2011-2012
- Advances in Neuropsychiatric Treatment Group, 2010-Present

Related Skills

-Neuroscientific and Psychological Translation for Classroom Practice

-TMS set-up, utilization, and interpretation (various machines)

-Frameless Sterotactic Neuronavigation set-up, registration, and utilization (various machines)

-tDCS set-up, utilization, and interpretation (various machines)

-EEG/ERP set-up, recording, and data analysis (various machines)

-Power lab MEP set-up, recording, and data analysis

-E-Prime, MatLab, Media Lab, & Direct RT programming

-SAS and SPSS statistical software analysis

<u>References</u>

Dr. Alvaro Pascual-Leone, MD, PhD Director Dr. Jennifer Thomson, PhD Senior Lecturer BA Center for Noninvasive Brain Stimulation Harvard Medical School 1-617-667-0203 apleone@bidmc.harvard.ed

Dr. Olivia Carter, PhD Senior Lecturer / Research Fellow School of Psychological Sciences University of Melbourne +61 (0)3 8344 6372 ocarter@unimelb.edu.au Dept. of Human Communication Sciences University of Sheffield 0114 222 2440 j.m.thomson@sheffield.ac.uk

Dr. John Hattie, PhD Director / Associate Dean Science of Learning Research Center University of Melbourne +61 (0)3 9035 5511 jhattie@unimelb.edu.au