

Christopher L Hewitson

Résumé

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Education

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|-------------|---|
| 2017 – 2021 | Macquarie University
<i>PhD in Cognitive Science (Under review)</i>
<i>Sensorimotor learning in complex and uncertain environments</i> |
| 2016 – 2016 | Macquarie University
<i>MRES in Cognitive Science</i>
<i>Investigating Interlimb Generalisation of Bayesian Sensorimotor Learning</i> |
| 2014 – 2015 | Adelaide University
<i>BA(Hons) in Philosophy of Cognitive Science</i>
<i>Eliasmith's Account of Mental Representation: A Peircean-inspired Analysis</i> |
| 2010 – 2011 | University of South Australia
<i>MTEACH in Middle and Secondary Education</i> |
| 2007 – 2008 | Adelaide University
<i>BA in Philosophy of Mind</i> |
| 2005 – 2006 | Flinders University
<i>BSc(Hons) Pharmacology</i>
<i>Acute effects of haemodialysis on biochemical modulators of endothelial function</i> |
| 2002 – 2005 | Flinders University
<i>BTECH in Pharmacology and Molecular Synthesis</i> |

Work Experience

- 2019 – 2019 | **Macquarie University**
MRES Adjunct Supervisor
- Co-supervision of visiting cotutelle student from Georg-August-University, Göttingen
- 2017 – 2020 | **Macquarie University**
Tutor
- COGS100: Introduction to Cognitive Science.
- 2013 – 2015 | **UniSA: Computational and Theoretical Neuroscience Lab**
Volunteer intern
- Development of improved learning rules for Recursive Neural Network Architecture (Supervised by Dr. Mark McDonnell)
- 2012 – 2015 | **Hamilton Secondary College Adelaide**
Secondary-school Teacher
- Year 11 and 12 Psychology, Philosophy and Nutrition studies. Year 11 Physics, Chemistry and Biology. Year 8 - 10 History, English, Japanese and Media studies.
- 2011 – 2012 | **Norwood Morialta Middle School**
Middle-school Teacher
- International Baccalaureate (IB) Science, years 8-10.
- 2010 – 2011 | **Tall-poppy Tutors Adelaide**
Private tutor
- Secondary-school years 8-12 tutor (Science and Psychology).
- 2009 – 2010 | **Flinders University School of Medicine**
Tutor
- Graduate-entry Medical program.
- 2009 – 2010 | **Flinders University Department of Philosophy**
Tutor
- Theory of Knowledge program.
- 2006 – 2007 | **Flinders University Department of Pharmacology**
Research Officer
- Analysis of short-term reproducibility of arterial vasoreactivity by pulse-wave analysis after pharmacological challenge project.

Awards, Honours and Grants

- 2019 – 2019 | **Macquarie University**
Competitive Post Graduate research fund recipient
- Partitioning Feedforward from Feedback Components of Bayesian Sensorimotor Learning: SFN 2019, Chicago.
 - Lab visit with Associate Professor Jordan Taylor at the Princeton Neuroscience Institute, New Jersey.
- 2018 – 2018 | **Macquarie University**
Centre of Excellence in Cognition and its Disorders: Student exchange scheme grant recipient
- Investigating the implicit vs explicit components of Bayesian motor learning.
 - Lab visit with Professor Timothy Carroll at the Human Motor Control Lab, University of Queensland.
- 2017 – 2020 | **Macquarie University**
Centre of Excellence in Cognition and its Disorders: Neural markers training scheme grant recipient
- Investigating the neural mechanisms underlying Bayesian sensorimotor learning using transcranial magnetic stimulation.
- 2014 – 2014 | **Flinders University Department of Computer Science, Engineering and Mathematics**
Summer intern Scholarship
- Development of neural network architecture in Java.

Publications

- 2007
Hewitson, C. L., Whiting, M. J., Barbara, J., & Mangoni, A. A. (2007). Acute effects of haemodialysis on biochemical modulators of endothelial function. *Journal of internal medicine*, 262(5), 571–580.
- 2008
Mangoni, A. A., Hewitson, C. L., Woodman, R. J., Whiting, M. J., McAteer-Carr, B., & Barbara, J. A. (2008). Symmetric dimethylarginine is an independent predictor of intradialytic hypotension. *American journal of hypertension*, 21(8), 955–959.
- 2009
Paul, B., Hewitson, C. L., Woodman, R. J., & Mangoni, A. A. (2009). Analysis of short-term reproducibility of arterial vasoreactivity by pulse-wave analysis after pharmacological challenge. *Clinical and Experimental Pharmacology and Physiology*, 36(1), 49–54.
- 2012
Bouteldja, N., Woodman, R., Hewitson, C. L., Domingo, E., Barbara, J., & Mangoni, A. (2012). P86Methylated arginines and nitric oxide in end-stage renal disease: Relationship with inflammatory and oxidative status. *Cardiovascular Research*, 93(supplementary 1).
- 2013
Bouteldja, N., Woodman, R. J., Hewitson, C. L., Domingo, E., Barbara, J. A., & Mangoni, A. A. (2013). Methylated arginines and nitric oxide in end-stage renal disease: Impact of inflammation, oxidative stress and haemodialysis. *Biomarkers*, 18(4), 357–364.
- 2018
Hewitson, C. L., Kaplan, D. M., & Sutton, J. (2018). Yesterday the earwig, today man, tomorrow the earwig? *Comparative Cognition & Behavior Reviews*, 13.
Hewitson, C. L., Sowman, P. F., & Kaplan, D. M. (2018). Interlimb Generalization of Learned Bayesian Visuomotor Prior Occurs in Extrinsic Coordinates. *Eneuro*, 5(4).
- 2020
Hewitson, C. L., Crossley, M. J., & Kaplan, D. M. (2020). Enhanced visuomotor learning and generalization in expert surgeons. *Human Movement Science*, 71, 102621.
- 2021
Crossley, M. J., Hewitson, C. L., Cartmill, J., & Kaplan, D. M. (2021). Motor adaptation: An underappreciated aspect of technical surgical skill. *ANZ Journal of Surgery*, 91(4), 489–490.
Gillett, A., Whyte, C., Hewitson, C. L., & Kaplan, D. M. (2021). Defending the viability of the mutual manipulability criterion in the extended cognition debate:: A reply to Baumgartner et al. *Philosophical Psychology*.
Hewitson, C. L., Kaplan, D. M., & Crossley, M. J. (2021). Feedback integration alters how sensory uncertainty modulates feedforward adaptation. *In review*.
Hewitson, C. L., Crossley, M. J., & Kaplan, D. M. (2021). Effects of visuomotor perturbations on motor performance in minimally invasive surgery: A theoretically-oriented review. *Annals of Surgery*.
Hewitson, C. L., Shukur, S. T., Cartmill, J., Crossley, M., & Kaplan, D. M. (2021). Camera counter-rotation imposes a cost on laparoscopic performance. *Scientific Reports*, 11(17634).
Kaplan, D. M., & Hewitson, C. L. (2021). Modelling Bayesian computation in the brain: Unification, explanation, and constraints. *Neural Mechanisms* (pp. 11–33). Springer.