

Dr Christopher R Brydges
Postdoctoral Research Associate

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Date of birth 16th March 1987
Marital status Single
Nationality Australian and United Kingdom citizen

Education

2014 PhD, School of Psychological Science, University of Western Australia (childhood development of executive functioning)
2009 Honours degree in psychology (BSc (Hons.)), University of Western Australia
2005-2008 Double undergraduate degree in science and commerce (BSc/BCom), University of Western Australia (majors: psychology, management, marketing)
1992-2004 School education in England and Australia

Professional Employment

Since Oct 2016 Postdoctoral Research Associate (Level A), Cognitive Science Lab, School of Psychological Science, University of Western Australia
Dec 2015-Oct 2016 Postdoctoral Research Associate (Level A), School of Psychology and Exercise Science, Murdoch University
Dec 2014-Dec 2015 Postdoctoral Research Associate (Level A), School of Psychology, University of Balearic Islands
Jan 2014-Dec 2014 Associate Lecturer (Level A), School of Psychology and Exercise Science, Murdoch University
Mar 2010-Oct 2013 Tutor, School of Psychological Science, University of Western Australia

Memberships and Affiliations

Australasian Cognitive Neuroscience Society (since 2013)

Teaching

2014	Unit “Introduction to Psychological Research Methods” (Murdoch University PSY173; 250+ students)
2014	Unit “Psychology: Measurement, Design, and Analysis” (Murdoch University PSY212; 120+ students)
2013	Cognition module of Unit “Lifespan Development” (UWA PSYC2214/3314; 500+ students)
2010-2013	Tutored in multiple undergraduate and postgraduate psychology units at UWA, including “Psychology: Mind and Brain”, “Psychology: Behaviour in Context”, “Psychology: Atypical Development”, “Industrial and Organisational Psychology”, “Psychology: Lifespan Development”, “Adult Psychopathology”, “Cognitive Psychology”, “Cognitive Neuroscience”, “Psychological Measurement and its Application”, and “Introduction to Structural Equation Modeling”.

Service

2017	Postgraduate/ECR Seminar Series Organiser, UWA School of Psychological Science
2016	Chair, ECR Committee, Australasian Cognitive Neuroscience Society
2010	Chair, Postgraduate Conference Organisation Committee, UWA School of Psychological Science

Research Supervision

Ongoing:	1 Honours student
Completed:	6 Honours students

Manuscript Reviewing

PLoS ONE / Brain and Cognition / Intelligence / Scientific Reports / The Clinical Neuropsychologist

Publications

Peer-reviewed papers

9. **Brydges, C. R.**, Ozolnieks, K. L., & Roberts, G. (2017). Working memory – not processing speed – mediates fluid intelligence deficits associated with ADHD symptoms. *Journal of Neuropsychology*, 11, 362-377. [Impact factor: 3.63; 4 citations]

8. Clunies-Ross, K. L., **Brydges, C. R.**, Nguyen, A. T., & Fox, A. M. (2015). Hemispheric asymmetries in auditory temporal integration: A study of event-related potentials. *Neuropsychologia*, *68*, 201-208. [IF: 3.20; 4 citations]
7. Campbell, C., Horlin, C., Reid, C., McMichael, J., Forrest, L., **Brydges, C.**, ... & Anderson, M. (2015). How do you think she feels? Vulnerability in empathy and the role of attention in school-aged children born extremely preterm. *British Journal of Developmental Psychology*, *33*, 312-323. [IF: 1.71; 4 citations]
6. **Brydges, C. R.**, Fox, A. M., Reid, C. L., & Anderson, M. (2014). The differentiation of executive functions in middle and late childhood: A longitudinal latent-variable analysis. *Intelligence*, *47*, 34-43. [IF: 2.98, 30 citations]
5. Demetriou, A., Spanoudis, G., Shayer, M., van der Ven, S., **Brydges, C. R.**, Kroesbergen, E. E., ... Swanson, H. L. (2014). Relations between speed, working memory, and intelligence from preschool to adulthood: Structural equation modelling of 14 studies. *Intelligence*, *46*, 107-121. [IF: 2.98, 34 citations]
4. **Brydges, C. R.**, Fox, A. M., Reid, C. L., & Anderson, M. (2014). Predictive validity of the N2 and P3 ERP components to executive functioning in children: A latent-variable analysis. *Frontiers in Human Neuroscience*, *8*, 80. [IF: 3.21; 20 citations]
3. **Brydges, C. R.**, Anderson, M., Reid, C. L., & Fox, A. M. (2013). Maturation of Cognitive Control: Delineating Response Inhibition and Interference Suppression. *PLoS ONE*, *8*(7), e69826. [IF: 2.81, 33 citations]
2. **Brydges, C. R.**, Clunies-Ross, K., Clohessy, M., Lo, Z. L., Nguyen, A., Rousset, C., ... Fox, A. M. (2012). Dissociable Components of Cognitive Control: An Event-Related Potential (ERP) Study of Response Inhibition and Interference Suppression. *PLoS ONE*, *7*(3), e34482. [IF: 2.81, 44 citations]
1. **Brydges, C. R.**, Reid, C. L., Fox, A. M., & Anderson, M. (2012). A unitary executive function predicts intelligence in children. *Intelligence*, *40*, 458-469. [IF: 2.98, 117 citations]

Manuscripts under review or in preparation

11. **Brydges, C. R.**, & Barceló, F. (2017). *Separating latency-variable from stimulus- and response-locked P3-like positivities involved in the cognitive control of task-switching*. Manuscript submitted for publication.
10. **Brydges, C. R.**, Landes, J. K., Reid, C. L., Campbell, C., French, N., & Anderson, M. (2017). *Cognitive outcomes in children and adolescents born very preterm: A meta-analysis*. Manuscript submitted for publication.
9. Maroni, T. D., Dawson, B., Barnett, K. A., Guelfi, K. J., Brade, C. J., Naylor, L. H., **Brydges, C. R.**, & Wallman, K. E. (2017). *Effectiveness of hand cooling and a cooling jacket on post-exercise cooling rates in hyperthermic athletes*. Manuscript submitted for publication.

8. Singh, K. A., Gignac, G. E., **Brydges, C. R.**, & Ecker, U. K. H. (2017). *The relationship between removal and fluid intelligence is mediated by working memory capacity*. Manuscript submitted for publication.
7. **Brydges, C. R.**, Gignac, G. E., & Ecker, U. K. H. (2017). *Working memory capacity, short-term memory capacity, and the continued influence effect: A latent-variable analysis*. Manuscript submitted for publication.
6. **Brydges, C. R.**, Reid, C. L., Campbell, C., French, N., & Anderson, M. (2017). *Executive functioning (fully) and processing speed (mostly) mediate intelligence deficits in children born very preterm*. Manuscript in preparation.
5. **Brydges, C. R.**, Reid, C. L., Campbell, C., French, N., & Anderson, M. (2017). *Single-trial EEG analyses reveal atypical cognitive development in children born very preterm*. Manuscript in preparation.
4. **Brydges, C. R.**, Nguyen, A. T., Barceló, F., & Fox, A. M. (2017). *Separating latency-variable from stimulus- and response-locked N2 and P3-like ERP peaks involved in response inhibition and interference suppression*. Manuscript in preparation.
3. **Brydges, C. R.**, & Barceló, F. (2017). *Aging effects on ERP positivities associated with cognitive control: 1. Proactive control*. Manuscript in preparation.
2. **Brydges, C. R.**, & Barceló, F. (2017). *Aging effects on ERP positivities associated with cognitive control: 2. Reactive control*. Manuscript in preparation.
1. **Brydges, C. R.**, & Barceló, F. (2017). *Aging effects on early and late ERP components associated with task switching*. Manuscript in preparation.

Published abstracts, talks, and symposia

6. **Brydges, C. R.**, Chameliec, M., & Barceló, F. (2015). Single-trial analyses reveal that the sustained ERP positivity following a task switch is reaction time aligned [Poster]. *The 5th Australasian Cognitive Neuroscience Conference, ACNC 2015*, Auckland, New Zealand, November 26-29, 2015.
5. Campbell, C., **Brydges, C. R.**, Reid, C. L., McMichael, J., French, N., & Anderson, M. (2014). Developmental pathways between intelligence and executive functions in children born extremely preterm [Abstract]. *Journal of Paediatrics and Child Health*, 50(S1), 75.
4. Roberts, G., **Brydges, C. R.**, Reid, C. L., & Anderson, M. (2014). Maturation of Neural Oscillations in Anterior Cingulate Cortex: An EEG Study using Measure Projection Analysis [Poster]. *XII International Conference on Cognitive Neuroscience, ICON-XII*, Brisbane, Australia, July 27-31, 2014.
3. Clunies-Ross, K. L., Fox, A. M., Nguyen, A. T., **Brydges, C. R.**, & Connaughton, V. (2014). Hemispheric differences in auditory temporal integration as indexed by

the T-complex of the auditory event-related potential [Poster]. *XII International Conference on Cognitive Neuroscience, ICON-XII*, Brisbane, Australia, July 27-31, 2014.

2. **Brydges, C. R.**, Fox, A. M., Reid, C. L., & Anderson, M. (2013). From Brain to Behaviour: A Latent Variable Study of Event-Related Potentials and Executive Functions in Children [Abstract]. *Frontiers in Human Neuroscience*. doi: 10.3389/conf.fnhum.2013.212.00105.
1. **Brydges, C. R.**, Anderson, M., Reid, C. L., & Fox, A. M. (2013). Different Developmental Trajectories of Response Inhibition and Interference Suppression: An Electrophysiological Perspective [Abstract]. *Journal of the International Neuropsychological Society*, 19(S1), 271.

Skills etc.

I am skilled in and have extensive experience with all aspects of pre-processing and analysing event-related potential data. This includes traditional measures of ERPs, current source density, source localisation, independent components analysis, time-frequency analysis, inter-trial coherence, residue iteration decomposition (RIDE) analyses, and ERPimage/single trial analyses. I have practical experience in administering EEGs using NuAmps, BioSemi, and Netstation set-ups, and have previously used Scan, BESA, Netstation, and EEGLAB/ERPLAB to conduct these types of analyses.

I have extensive experience in using (M)ANOVA, correlational, regression, and mediation analyses, exploratory and confirmatory factor analysis, and structural equation modelling, using SPSS and AMOS. I also have basic competence in Bayesian hypothesis testing, using R, JAGS (a Bayesian plug-in for R) and JASP.

I also play social soccer for Kalamunda United, and play the bass guitar. I have also travelled to 33 countries.