# Samuel H. Forbes

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#### EMPLOYMENT

2018 - Senior Research Associate, School of Psychology, University of East Anglia

Supervisor: Prof. John P. Spencer

**Project:** Probing the neural basis of visual working memory in development (NIH).

#### EDUCATION

2014 - 18 DPhil, Experimental Psychology - University of Oxford, United Kingdom

Advisors: Prof. Kim Plunkett & Dr E. Matthew Husband

Dissertation: The Development of Colour Word Knowledge in Infants and Toddlers

Funding: Rhodes Scholarship

2011 - 13 MA (Research and Coursework), Linguistics and Applied Linguistics, -

Nanjing Normal University, PR China

Advisor: Assoc. Prof. Liang DanDan

**Dissertation:** A Comparative Study of the Use of the Perfective Aspect Under Narrative

Conditions of English and Mandarin Children **Funding:** Chinese Scholarship Council

2010 - 11 Cert Lang, Mandarin Chinese, - Nanjing Normal University, PR China

2009 Grad Cert, Asian Studies, - University of Tasmania, Australia

2006 - 08 BA, Japanese and Mandarin, - University of Tasmania, Australia

#### Professional Experience

- 2014 Webmaster Oxford University BabyLab
  - Managed Lab website and social media sites
- 2015 17 Graduate Mentor Department of Experimental Psychology, University of Oxford
  - Mentored 2 first-year DPhil students each year
- 2015 16 President Brasenose College Hulme Common Room (HCR)
  - Responsible for overseeing graduate common room of approximately 250 members
- 2013 14 Executive Assistant to the Arts St Michael's Collegiate School, Tasmania
  - Responsible for administration in Arts faculty of leading girl's school

#### **PUBLICATIONS**

Under Forbes, S.H., & Plunkett, K. The development of contouring abilities in the second year.

**Review** Developmental Psychology.

Under Wahab, A.G.A., Forbes, S.H., Cattani, A., Goslin, J., & Floccia, C.

**Review** An adaptation of the MacArthur-Bates CDI in 17 Arabic dialects for children

aged 8 to 30 months. Language Learning and Development.

Under Fu, X.W., Forbes, S.H., & Liang, D.D. High functioning autistic children's abilities

**Review** in scalar implicature of the term "Some".

Research in Autism Spectrum Disorders.

Forbes, S.H. (2020). PupillometryR: An R package for preparing and analysing

pupillometry data. Journal of Open Source Software. 5(50), 2285.

2020 Delgado Reyes, L., Wijeakumar, S., Magnotta, V.A., Forbes, S.H., & Spencer J.P. (2020).

The functional brain networks that underlie visual working memory in the first two years of life. *NeuroImage. 219*, 116971.

Forbes, S.H., & Plunkett, K. (2020). Linguistic and cultural variation in early color word learning. *Child Development*. 91(1), 28-42.

Forbes, S.H., & Plunkett, K. (2019). The role of colour labels in mediating infant visual attention. *Cognition*. 186, 159-170.

Forbes, S.H., & Plunkett, K. (2019). Infants show early comprehension of basic colour words. *Developmental Psychology* 55(2), 240-249.

Forbes, S.H., & Plunkett, K. (2017). Early colour word learning in British infants. *Proceedings CogSci*, 367-372.

2015 Liang D.D., Song, Y.Q., Forbes, S.H. (2015). A contrastive study of the perfective aspect use in English and Chinese children's narratives.

Foreign Language Teaching and Research 7(1), 81-93.

### OPEN SOURCE SOFTWARE CONTRIBUTIONS

Forbes, S.H. PupillometryR: An R package for preparing and analysing pupillometry data. https://github.com/samhforbes/PupillometryR

Forbes, S.H. DDLab: Common eyetracking functions needed in the Developmental Dynamics Lab. https://github.com/samhforbes/DDLab

#### Conference Presentations

July 2020 Virtual International Conference on Infant Studies (ICIS)

**Poster** Forbes S.H. PupillometryR: An R tool for measuring infant visual behaviour through pupil size

July 2020 Virtual International Conference on Infant Studies (ICIS)

**Poster** Bakopoulou, M.E., Forbes, S.H., Lorenz, M.G., Tremlin, R., Bates, J., Samuelson, L. Visual exploration in novel noun generalization task: A window on the relationship between vocabulary and shape bias

July 2020 Virtual International Conference on Infant Studies (ICIS)

**Poster** Forbes, S.H., Wijeakumar, S., Delgado Reyes, L., Kumar, A., Magnotta, V., Spencer, J.P. Assessing the development of visual working memory in a global context: The INDIA project

- Sept. 2019 fNIRS UK, Birmingham
  - Talk Spencer, J.P., Forbes, S.H., Delgado Reyes, L., Magnotta, V. Examining changes in visual working memory in early development using fNIRS and structural MRI
- Sept. 2019 fNIRS UK, Birmingham

Poster Forbes, S.H., Delgado Reyes, L., Magnotta, V., Spencer, J.P. An fNIRS-based approach to understanding the role of sleep in the development of visual working memory

- Aug. 2019 Annual Meeting of the Flux Society, NY
   Poster Forbes, S.H., Delgado Reyes, L., Grewal, J., Deoni, S., Spencer J.P.
   The role of sleep in early infant myelin development
- Aug. 2019 Annual Meeting of the Flux Society, NY
   Poster Delgado Reyes, L., Forbes, S.H., Deoni, S., Spencer, J.P.
   The role of toddler myelination in preschool executive function development
- Aug. 2019 4<sup>th</sup> Lancaster Conference on Infant and Child Development (LCICD), Lancaster Talk Forbes, S.H., Delgado Reyes, L., Grewal, J., Deoni, S., Spencer J.P. The role of sleep in the development of visual working memory.
- Aug. 2019 4<sup>th</sup> Lancaster Conference on Infant and Child Development (LCICD), Lancaster Talk Forbes, S.H. Measuring infant visual behaviour through pupil size: An introduction to PupillometryR.
- Aug. 2019 4<sup>th</sup> Lancaster Conference on Infant and Child Development (LCICD), Lancaster Talk Aneja, P., Forbes, S.H., Spencer, J.P. Visual exploration during parent-infant interaction in India and UK
- July 2019 European Congress of Psychology, Moscow
   Talk Forbes, S.H., Delgado Reyes, L., Grewal, J., Deoni, S., Spencer J.P.
   The role of sleep in visual working memory and brain health. Part of a symposium:
   Global Brain Health and Development chaired by S.H. Forbes
- July 2019 European Congress of Psychology, Moscow
  Talk Aneja P., Forbes S.H., Spencer J.P. Cultural differences in dyadic interaction
  using head-mounted cameras. Part of a symposium: Global Brain Health and
  Development chaired by S.H. Forbes
- June 2019 CLEAR 2019, Potsdam
   Talk Forbes S.H. PupillometryR: A framework for investigating pupillometry data in R.
- Mar. 2019 Society for Research in Child Development
  Poster Forbes, S.H., Delgado Reyes, L.M., Grewal, J., Cassidy, J.R., Spencer, J.P.
  A Neurodevelopmental Approach to Understanding the Role of Sleep in the Development of Visual Working Memory
- Oct. 2018 Biennial Meeting of the Society for fNIRS, Tokyo
  Poster Forbes, S.H., Delgado Reyes, L.M., Cassidy, J.R., Spencer, J.P.
  A Neurodevelopmental Approach to Understanding the Role of Sleep in the Development of Visual Working Memory
- Sep. 2018 2nd British Psychological Society East of England Conference, Norwich
   Talk Forbes, S.H., Delgado Reyes, L.M., Cassidy, J.R., Spencer, J.P.
   A Neurodevelopmental Approach to Understanding the Role of Sleep in the Development of Visual Working Memory
- Sep. 2018 2<sup>nd</sup> British Psychological Society East of England Conference, Norwich Talk Aneja, P., Forbes, S.H., & Spencer, JP. Cultural differences in dyadic interaction using head-mounted cameras

- Sep. 2018 20<sup>th</sup> ESCON Transfer of Knowledge, Cologne, Germany Talk Aneja, P., Forbes, S.H., & Spencer, JP. Cultural differences in dyadic interaction using head-mounted cameras
- Sep. 2018 3<sup>rd</sup> Lancaster Conference on Infant and Child Development (LCICD), Lancaster Talk Forbes, S.H., & Plunkett, K. Visual Closure in Early Colour Vision Testing.
- June 2018 Social Communication Across the Lifespan, Canterbury Poster Aneja, P., Forbes, S.H., & Spencer, JP. Cultural differences in dyadic interaction using head-mounted cameras
- June 2018 Expanding the Field 2018: Multi-disciplinary Developmental Dynamics, Norwich Poster Mosteller, S., Samuelson, L.K., Wijeakumar, S., Forbes, S.H., Ghose Coveney, S., Grewal, J., Johns, E. & Spencer, J.P. Neural Mechanisms of Spatial Coordination During Interactive Word Learning in Early Development
- June 2018 48th Annual Meeting of the Jean Piaget Society, Amsterdam, The Netherlands Talk Aneja, P., Forbes, S.H., & Spencer, JP. Cultural differences in dyadic nteraction using head-mounted cameras.
- May 2018 The 48<sup>th</sup> Annual meeting of the Jean Piaget Society, Amsterdam

  Talk Mosteller, S., Samuelson, L.K., Forbes, S.H., Wijeakumar, S. & Spencer, J.P.

  Shared Space and Neural Coherence in Early Word Learning.
- Aug. 2017 2<sup>nd</sup> Lancaster Conference on Infant and Child Development (LCICD), Lancaster Poster Forbes, S.H., & Plunkett, K. The Role of Labels in Understanding Contextual Information.
- Aug. 2016 1st Lancaster Conference on Infant and Child Development (LCICD), Lancaster Talk Forbes, S.H., & Plunkett, K. The Development of Colour Word Knowledge in Infants and Toddlers
- July 2016 39<sup>th</sup> Annual Meeting of the Cognitive Science Society, London
   Talk Forbes, S.H., & Plunkett, K. Early Colour Word Learning in British Infants
- July 2016 39<sup>th</sup> Annual Meeting of the Cognitive Science Society, London Poster Forbes, S.H., & Plunkett, K. The Development of Visual Closure in Infancy
- May 2016 2016 International Conference on Infant Studies (ICIS), New Orleans
  Poster Forbes, S.H., & Plunkett, K. The Development of Colour Word Knowledge in
  Infants and Children

#### Invited talks

- June 2019 CLEAR 2019, Potsdam
  - Title: PupillometryR: A framework for investigating pupillometry data in R.
- Sep. 2018 University of Sussex Department of Psychology:

Title: Colour Word and Colour Category Learning in Infants and Toddlers Host: Prof. Anna Franklin

Feb. 2018 Oxford Brookes University Department of Psychology:

Title: The Effect of Colour Word Learning on Colour Category Knowledge Host: Dr. Nayeli Gonzalez-Gomez

#### SUPERVISION

#### 2018 - Undergraduate supervision

- Responsible for supervising 2 undergraduate psychology student projects per year
- Responsible for marking student dissertations

### TEACHING

2019 -	Demonstrator Undergraduate courses, UEA - Running and assisting with practical demonstrations in the fNIRS lab
2019	Seminar leader Cognitive Masters course, UEA - Designed and ran a lecture and demonstration on theory and practice of fNIRS
2019	Seminar leader Developmental Masters course, UEA - Designed and ran a lecture on replicability and publishing in Developmental Psychology
2019	Seminar leader PhD course, UEA - Designed and ran a workshop on open science and replicability for PhD students
2017	Lecturer Language and Cognition, Oxford - Redesigned and ran a core practical in MATLAB on research design for undergraduates
2015 - 18	Tutor Language and Cognition, Oxford - Responsible for tutoring groups of 3 students at multiple colleges
2011 - 13	Lecturer & Course Co-ordinator Foreign and National Education, NJNU - Designed and lectured 2 units per year to both of 3rd and 4th year undergraduates

Public Engagement		
May 2019	<ul><li>Pint of Science, Norwich</li><li>- 3 Nights of presenting neuroscience and psychology fact or myth quiz</li></ul>	
Sep. 2017	Oxford Curiosity Carnival - Public engagement explaining work and playing games with parents and children	
July 2016	<ul> <li>UNIQ Summer School</li> <li>Presented an interactive introduction and workshop on testing infants</li> <li>For outstanding State School students interesting in studying at Oxford</li> </ul>	
Feb. 2016	Oxford Making Links St Catherine's College, Oxford - Presented a portion of research to teachers involved in early years teaching	
Sep. 2015	Belfast Baby Day	

- Presented two invited talks to mothers and researchers at inaugural Belfast Baby Day

- Responsible for examination and grading of students

## TECHNICAL SKILLS

Statistics	R Bayesian hierarchical modeling, mixed effect modeling, survival analysis, GAMs - Familiar with STAN, JAGS, lme4, brms, ggplot2, etc MRI Analysis Structural and mcDESPOT
Coding	R, Python, Matlab, I⁴TEX
Testing	Infant & Adult Eye-tracking, Pupillometry, fNIRS, Head-mounted eye-tracking

### FUNDING AND AWARDS

2019	Flux Society Travel Award \$1000 USD for conference travel
2019	LCICD Fee Waiver valued at approximately £250
2017	Brasenose College Hulme Completion Grant funding associated with thesis completion.
2017	Brasenose College Grant funding for conference attendance 448
2016	Brasenose College Grant funding for conference attendance 450
2016 - 18	Brasenose College Senior Hulme Scholarship for outstanding DPhil performance
2015	Brasenose College Grant funding for conference attendance 436
2014 - 18	Rhodes Scholarship Tasmania
2010 - 13	Chinese Scholarship Council Award for 4 years' study in PRC
2007 - 08	Japan Student Services Organization Award for 1 year exchange in Japan