# Olivia Guest

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PROFESSIONAL EXPERIENCE

# Department of Experimental Psychology, University College London, UK

Postdoctoral Researcher 2016-

ReScience Journal — Associate Editor 2015–

Software Sustainability Institute, UK — Fellow 2016 2016–2017

Department of Experimental Psychology, University of Oxford, UK

Postdoctoral Researcher 2014–2016

• Created models for category learning in infancy.

• Tutored on the Language and Cognition module.

• Ran and developed the Block Practical: Connectionist Models and Cognitive Processes.

#### Department of Psychological Sciences, Birkbeck, UK

Graduate Teaching Assistant

2010-2014

- Taught on a range of courses within psychological sciences.
  - Was trained to evaluate, mark, invigilate, and support part-time, mature, and full-time students.
  - Managed the SONA system.
  - Organised and led the Centre for Cognition, Computation and Modelling's seminar.

# **PUBLICATIONS**

Rougier, N. P. et al. (2017). Sustainable computational science: the ReScience initiative. *PeerJ Computer Science*.

Love, B. C., Guest, O., Slomka, P., Navarro, V., Wasserman, E. (2017). Deep Networks as Models of Human and Animal Categorization. *In Proceedings of the 39th Annual Meeting of the Cognitive Science Society.* (pp. 1457–1458).

**Guest, O.** & Love, B. C. (2017). What the Success of Brain Imaging Implies about the Neural Code. *eLife*, 6:e21397.

**Guest, O.** & Rougier, N. P. (2016). What is computational reproducibility? *IEEE CIS Newsletter on Cognitive and Developmental Systems*, 13 (1).

Guest, O. (2016). Crisis in What Exactly?. The Winnower.

Love, B. C., Kopeć, Ł. & **Guest, O.** (2015). Optimism Bias in Fans and Sports Reporters. *PLoS ONE*, 10 (9).

Cooper, R. P. & **Guest, O.** (2014). Implementations are not specifications: specification, replication and experimentation in computational cognitive modeling. *Cognitive Systems Research*, 27, 42–49.

**Guest, O.**, Cooper, R. P. & Davelaar, E. J. (2014). [High-Level Cognition]. The Influence of Implementation on "Hub" Models of Semantic Cognition. In J. Mayor, P. Gomez (Eds.), *Computational Models of Cognitive Processes* (pp. 155–169). World Scientific.

Guest, O., Cooper, R. P. & Davelaar, E. J. (2012). Semantic Cognition: A Re-examination of the Recurrent Network "Hub" Model. In Proceedings of the Ninth International Conference on Cognitive Modelling. Berlin, Germany. April. (pp. 259–264). Berlin, Germany. April. Universitätsverlag der TU Berlin.

# **PREPRINTS**

Rougier, N. P. et al. (2017). Sustainable computational science: the ReScience initiative. *arXiv*.

**Guest, O.**, Kanayet, F. J., & Love, B. C. (2017). Gerrymandering and Computational Redistricting. *arXiv*.

**Guest, O.** & Love, B. C. (2016). What the Success of Brain Imaging Implies about the Neural Code. *bioRxiv*.

#### **EDUCATION**

#### Birkbeck, UK

2010-2014

Ph.D., Psychological Sciences, Sep 2014

- Thesis: Towards a Unified Computational Account of Semantic Impairments
- 1st Supervisor: Prof. Richard P. Cooper
- 2nd Supervisor: Dr. Eddy J. Davelaar

#### University College London, UK

2009-2010

M.Sc., Cognitive and Decision Sciences (Distinction), Sep 2010

- Thesis: Modelling Semantic Memory & Its Impairments Following Neural Damage
- Supervisor: Prof. Richard P. Cooper

# The University of York, UK

2006-2009

B.Sc., Computer Science, Jun 2009

#### **CONFERENCES**

# 39th Annual Meeting of the Cognitive Science Society (CogSci 2017)

London, UK

26-29 Jul 2017

• Talk: Deep Networks as Models of Human and Animal Categorization.

#### 16th Annual Summer Interdisciplinary Conference (ASIC 2017)

Interlaken, Switzerland

15-20 Jul 2017

• Talk: Deep Networks as Models of Human and Animal Categorization.

### 1st Lancaster Conference on Infant and Early Child Development (LCICD 2016)

Lancaster, UK

25-27 Aug 2016

• Talk: Representational Re-description in hSOMs.

#### 15th Annual Summer Interdisciplinary Conference (ASIC 2016)

• Talk: What the Success of Brain Imaging Implies about the Neural Code.

# 14th Annual Summer Interdisciplinary Conference (ASIC 2015)

Mammoth Lakes, California, USA

10-15 Jul 2015

• Talk: Optimism Bias in Novice and Expert Sport Forecasting.

# 13th Neural Computation and Psychology Workshop (NCPW 13)

BCBL, San Sebastian, Spain

12-14 Jul 2012

• Talk: Exploring the influence of architecture and learning algorithm on the breakdown of the "hub" model of semantic cognition.

# 11th International Conference on Cognitive Modeling (ICCM 2012)

Technische Universität Berlin, Berlin, Germany

12-15 Apr 2012

- Poster: Semantic Cognition: A Re-examination of the Recurrent Network "Hub" Model.
- Won Best Student Poster Prize.

# INVITED TALKS

## Open Data Day 2018

Goldsmiths, University of London, UK

3 Mar 2018

• Gerrymandering and Computational Redistricting.

#### Cognitive Neuroscience Friday Seminar (FriSem)

Stanford University, California, USA

16 Feb 2018

• How deep networks contribute to our understanding of human and animal representation in categorization.

# Research Programming Technical Social

University College London, UK

15 Nov 2017

• Gerrymandering and Computational Redistricting.

#### Centre for Language Studies

Radboud University, The Netherlands

8 Mar 2017

• What the Success of Brain Imaging Implies about the Neural Code.

#### **London Judgement and Decision Making Seminars**

University College London, UK

8 Feb 2017

• What the Success of Brain Imaging Implies about the Neural Code.

# Summerfield Lab

University of Oxford, UK

23 Nov 2016

• What the Success of Brain Imaging Implies about the Neural Code.

#### **ORGANISING**

# 16th Scientific Computing with Python Conference (SciPy 2017)

Austin, Texas, USA 10–16 Jul 2017

- Chaired neuroscience mini-symposium with Ariel Rokem.
- Reviewed conference submissions.

#### Research Data Visualisation Workshop (RDVW)

#### Software Sustainability Institute, University of Manchester

28 Jul 2016

- Organised 1-day workshop with Raniere Silva (main organiser) and Vince Knight.
- Member of steering committee.
- Obtained funding from RStudio.

# Introduction to Computational Cognitive Modelling Workshop

CCCM, Birkbeck

23-25 Apr 2014

- Organised 3-day workshop with Chris Brand (co-organiser).
- Prepared slides, exercises, created website.

#### **TEACHING**

# Department of Experimental Psychology, University of Oxford, UK

Postdoctoral Research Assistant

2014-

#### Block Practical: Connectionist Models and Cognitive Processes

- Module: Third Year, B.Sc.
- Designed course structure and materials (slides and exercises).
- Set final report wherein students replicated from scratch Tyler et al. (2000) in Python.
- Created course website: oliviaguest.com/connectionism.

Tutorial: Language and Cognition

- Module: Second Year, B.Sc.
- Set essays and marked exams.

#### Department of Psychological Sciences, Birkbeck, University of London, UK

Graduate Teaching Assistant

2010-2014

 Modules Taught: General Foundations of Psychology, Psychobiology, Advanced Research Methods, Advanced Quantitative Methods, Memory and Cognition, Matlab Programming for Psychological Science,

# MEDIA OUTRFACH

#### BBC Radio 4: Today Show

22 Feb 2016

• Interview: What can we learn in 4 months?

#### **Optimism Bias in Fans and Sports Reporters**

9 Sep 2015

- Press Releases: University of Oxford, UCL
- Media Coverage: CS Monitor, Medical Daily, MinnPost, Newsweek, Pacific Standard, Phys.org.

# TECHNICAL SKILLS

**General:** Web design (e.g., bradlove.org, neuroplausible.com, oliviaguest.com, redistrict.science); Graphic Design (i.e., Adobe Suite, GIMP, Inkscape); GUI design (i.e., PyGTK, GTK+); Artificial Neural Networks (e.g., TensorFlow); Unix (e.g., CLI, Server Administration).

**Programming:** Ada, C, C++, C#, Java, JavaScript, LETEX, MATLAB, OpenGL, Pascal, PHP, Prolog, Python, R, Scheme, SQL, Visual Basic.