# Christopher Richard Cox

#### Education

- 2016 **PhD Cognitive Psychology**, University of Wisconsin-Madison.
- 2011 M.S. Cognitive Psychology, University of Wisconsin-Madison.
- 2009 B.S. Psychology, DePaul University, Chicago, IL, Magna cum Laude.
- 2009 B.A. Economics, DePaul University, Chicago, IL, Magna cum Laude.

## Professional Experience

## Research Experience

- 2016—present **Post Doc**, Working with Matthew Lambon Ralph in the Neuroscience and Aphasia Research Unit, University of Manchester, UK.
  - 2010–2016 **Graduate Student**, Advisors: Timothy T. Rogers and Mark S. Seidenberg, University of Wisconsin, Madison, WI.
  - 2009–2010 **Operations Research Analyst**, *TRADOC*, *US Department of Defense*, White Sands. NM.
  - 2007–2009 **Research Assistant**, *Supervisor: Pablo Gomez, DePaul University*, Chicago, IL. Teaching/Mentoring Experience
    - 2014 PREP Student Mentor, University of Wisconsin, Madison.

Advised and mentored a talented undergraduate for 11 weeks during the summer as part of the Psychological Research Experience Program (PREP). PREP provides intensive mentoring and experience in scientific research and professional development to undergraduates from historically underrepresented populations.

- 2013–2014 Teacher's Assistant, Univeristy of Wisconsin, Madison.
  Graduate level statistics course in the Psychology Department with emphasis on regression and hierarchical linear models. Course was co-taught by John Curtin and Markus Brauer.
  - 2013 **Guest lecture**, *Univeristy of Wisconsin*, Madison.

    Invited by Anja Wanner to give a guest lecture in ENG 413 "English Words: Grammar, Culture, Mind" on the neural representation of word meanings.
  - 2012 Reader/Grader, Univeristy of Wisconsin, Madison.
    Undergraduate level course titled "Language, Mind and Brain" in the Psychology Department, tought by Professor Maryellen MacDonald.
  - 2012 Lab mentor, University of Wisconsin, Madison.

#### Grant Writing Experience

2016 Computational Infrastructure for Brain Research: Workshops on Methods and Infrastructure for Scalable Computing in Neuroscience (NSF 1649759), Helped draft and co-author this grant. I am appointed to the organizing committee for the funded workshops. \$50,000.

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2015 NRT-DESE LUCID: A project-focused cross-disciplinary graduate training program for data-enabled research in human and machine learning and teaching (NSF 1545481), Helped research and pull together supplementary data needed for the submission. \$3,000,000.

#### Awards

2016 Villas Travel Award.

Internal award at the university of Wisconsin

2013 Rumelhart Memorial Travel Award.

Awarded to best first-author student and post-doc submissions to the Neural Computation and Psychology Workshop

2013 Neural Information Processing Systems (NIPS) Spotlight Talk.

There were 1420 submissions to NIPS13. Of these, 52 were selected for spotlight presentations.

2010 Official Commendation from US ARMY.

Awarded by the Director of the TRADOC Analysis Center, Colonel Garrett R. Lambert.

# Grants/Scholarships

- 2014 Schwartz Grant, Departmental award totaling \$4000.
- 2011–2015 Hertz Grant, Departmental travel award.

Awarded each year to offset traveling to present first author poster or paper.

2009 SMART Scholarship, Department of Defense.

The Science, Mathematics And Research for Transformation (SMART) Scholarship for Service Program (http://smart.asee.org/).

2005 **Centennial Scholarship**, *DePaul University*.

#### Invited Talks

- 2015 **Condor Week**, *Custom templates for streamlines DAG workflows*, Condor Week is a conference for users and developers of HTCondor (a specialized workload management system for compute-intensive jobs)..
- 2015 **Open Science Grid User School**, *HTC and Cognitive Neuroscience*, Part of a showcase series highlighting researchers who have seen major impacts to their work as a result of empoloying high throughput computing resources..

### Professional Service

- 2016–17 Reviewer, Submissions to the Cognitive Science Society Meeting.
  - 2015 Reviewer, Journal of Selected Topics in Signal Processing.
- 2013–2015 **Colloquium Series Committee**, Organized and booked lectures for the Univeristy of Wisconsin Psychology Department. Involved grant writing..

# Association Memberships

Cognitive Neuroscience Society

#### Journal Publications

- **Cox**, **C.** & Rogers, T. T. (in prep). Taking distributed representations seriously in functional brain imaging. *Journal of Cognitive Neuroscience*.
- Kattner, F., Cochrane, A., Cox, C., Gorman, T. E., & Green, C. S. (in press). Perceptual learning generalization from sequential perceptual training as a change in learning rate. *Current Biology*.
- Kattner, F., **Cox**, **C.**, & Green, C. S. (2016). Transfer in category learning depends on the training task. *PLOS ONE*.
- Oswal, U., **Cox**, **C.**, Lambon Ralph, M. A., Rogers, T. T., & Nowak, R. (2016). Representational similarity learning with application to brain networks. *Proceedings of The 33rd International Conference on Machine Learning*, 1041–1049.
- Cox, C., Seidenberg, M. S., & Rogers, T. T. (2015). Connecting functional brain imaging and parallel distributed processing. *Language, Cognition and Neuroscience*, 30(4), 380–394. doi:10. 1080/23273798.2014.994010
- Rao, N., Nowak, R., **Cox**, **C.**, & Rogers, T. T. (2014). Logistic regression with structured sparsity. *CoRR*, *abs/1402.4512*. Retrieved from http://arxiv.org/abs/1402.4512
- Rao, N., Cox, C., Nowak, R., & Rogers, T. T. (2013). Sparse Overlapping Sets Lasso for multitask learning and its application to fMRI analysis. In C. Burges, L. Bottou, M. Welling, Z. Ghahramani, & K. Weinberger (Eds.), *Advances in neural information processing systems 26* (pp. 2202–2210). Curran Associates, Inc.

## Chapters

Rogers, T. T. & Cox, C. (2015). Revisiting a golden age hypothesis in the era of cognitive neuroscience. The Wiley Handbook on The Cognitive Neuroscience of Memory, 60.

#### Refereed Conference Posters

- Cox, C., Oswal, U., Lambon Ralph, M. A., Rogers, T. T., & Nowak, R. (2016). Network representational similarity analysis of visual and semantic structure. Poster presented at the 23st meeting of the Cognitive Neuroscience Society, New York, NY.
- Cox, C., Jain, L., Murphy, A., Jamieson, K., Glattard, N., Fernandez, C., ... Rogers, T. T. (2015). NEXT: accelerating the pace of scientific discovery. Poster presented at 4th Wisconsin Alumni Research Foundation Discovery Challenge, Madison, WI.
- Cox, C., Lu, Q., & Rogers, T. T. (2015). Iterative Lasso: An even-handed approach to whole brain MVPA. Poster presented at the 22st meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- Oswal, U., Cox, C., Rogers, T. T., & Nowak, R. (2015). Inferring brain activity through pairwise comparisons. Poster presented at the Neuro@Wisc workshop held in Madison, WI.
- Cox, C., Rao, N., Nowak, R., & Rogers, T. T. (2014). SOS Lasso: A new method for finding distributed representations in fMRI data. Poster presented at the 21st meeting of the Cognitive Neuroscience Society, Boston, MA.
- Cox, C., Malekpour, S., Nowak, R., & Rogers, T. T. (2012). A new method for fMRI analysis suggests that representations of word meaning are radically distributed. Poster presented at 1st Wisconsin Alumni Research Foundation Discovery Challenge, Madison, WI.
- Cox, C., Seidenberg, M. S., Binder, J. R., Desai, R. H., & Rogers, T. T. (2012a). Are semantic representations of words radically distributed? Poster presented at 13th meeting of the Neural Computation and Psychology Workshop, Donastia-San Sebastian, Spain.

- Cox, C., Seidenberg, M. S., Binder, J. R., Desai, R. H., & Rogers, T. T. (2012b). Are semantic representations of words radically distributed? Poster presented at 19th Meeting of the Cognitive Neuroscience Society, Chicago, IL.
- Gomez, P., Cox, C., & Geller, J. (2011). Modeling corrective saccades. Poster presented at 41st Meeting of the Society for Computers in Psychology Meeting, Seattle, WA.
- Cox, C. & Gomez, P. (2009). Corrective saccades and viewpoint information. Poster presented at the 50th Annual Meeting of the Psychonomic Society, Boston, MA.