Kevin G. O'Neill

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Education

Duke University Fall 2018 - Present
Ph.D., Cognitive Neuroscience GPA: 3.95
Imagination and Modal Cognition Laboratory — Dr. Felipe De Brigard
Pearson Laboratory — Dr. John Pearson

Rensselaer Polytechnic Institute Class of 2017
Bachelor of Science, Cognitive Science and Computer Science GPA: 3.97

Work Experience

Computer Scientist Summer 2017 - Present
ARCADIA Project — Paul Bello
U.S. Naval Research Laboratory

Undergraduate Researcher Spring 2015 - Spring 2017
Rensselaer Artificial Intelligence and Reasoning
(RAIR) Laboratory — Dr. Selmer Bringsjord

Federal Work Study Fall 2014 - Spring 2017
Rensselaer Cognitive Science Department

Manuscripts Under Review/ In Preparation

O'Neill, K., Henne, P., Bello, P., & De Brigard, F. (In preparation). Degrading Causal Judgments.

Henne, P., **O'Neill, K.**, Bello, P., Khemlani, S., & De Brigard, F. (In preparation). Causal Selection and Norms.

O'Neill, K., Liu, A., Yin, S., Brady, T., & De Brigard, F. (Under review). Category Learning Effects on Memory.

O'Neill, K., Smith, A. P., Smilek, D., & Seli, P. (Under review). Dissociating the Freely-Moving Thought Dimension of Mind-Wandering from the Intentionality and Task-Unrelated Thought Dimensions.

Seli, P., **O'Neill, K.**, Carriere, J. S. A., Smilek, D., Beaty, R., & Schacter, D. (Under review). Mind-Wandering Across the Age Gap: Age-Related Differences in Mind-Wandering are Partially Attributable to Age-Related Differences in Motivation.

Journal Papers

O'Neill, K., & De Brigard, F. (2019). Two challenges for a dual system approach to temporal cognition [Commentary on "Thinking in and about Time: A Dual Systems Perspective on Temporal Cognition" by Hoerl, C. and McCormack, T.]. *Brain and Behavioral Sciences*, 1–77.

Govindarajulu, N. S. and Bringsjord, S. and Sen, A. and Paquin, J. C. and **O'Neill, K.** (2018). Ethical Operating Systems. In De Mol, Liesbeth and Primiero, Giuseppe (Ed.), *Reflections on Programming Systems: Historical and Philosophical*

Aspects (Vol. 133, pp. 235–260). Cham: Springer.

Bringsjord, S., & **O'Neill, K.** (In Press). Third-millenium computational logic. *Minds and Machines*.

Conference Papers

Yin, S., **O'Neill, K.**, Brady, T., & De Brigard, F. (2019). The Effect of Category Learning on Recognition Memory: A Signal Detection Theory Analysis. In *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*.

Bello, P., **O'Neill, K**., & Bridewell, W. (2019). Artificial Agency Requires Attention: The Case of Intentional Action. In *AAAI Spring Symposium: Towards Conscious AI Systems*.

O'Neill, K., Bridewell, W., & Bello, P. (2018). Time-Based Resource Sharing in ARCADIA. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.

Bello, P., Lovett, A., Briggs, G., & **O'Neill, K.** (2018). An Attention-Driven Model of Human Causal Reasoning. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.

Presentations

Smith, A., **O'Neill, K.**, Smilek, D., Seli, P. (2019) "On the Utility of the Dynamic Framework of Mind Wandering". *Psychonomics*.

Yin, S., **O'Neill, K.**, Brady, T., De Brigard, F. (2019) "The Effect of Category Learning on Recognition Memory: A Signal Detection Theory Analysis". *41st Annual Meeting of the Cognitive Science Society*.

Bello, P., **O'Neill, K.**, Bridewell, W. (2019). "Artificial Agency Requires Attention: The Case of Intentional Action". In *AAAI Spring Symposium: Towards Conscious AI Systems*.

Lovett, A., Briggs, G., **O'Neill, K.**, Bello, P. (2018). "Strategic Deployment of Attention in Online Causal Judgment: A Computational Model". *Journal of Vision*, 18(10), 741-741.

O'Neill, K., Bridewell, W., Bello, P. (2018) "Time-Based Resource Sharing in ARCADIA". *40th Annual Meeting of the Cognitive Science Society*.

Bello, P., Lovett, A., Briggs, G., **O'Neill, K.** (2018) "An Attention-Driven Model of Human Causal Reasoning". *40th Annual Meeting of the Cognitive Science Society*.

O'Neill, K., Bringsjord, S. "Solving the Lottery Paradox in a Cognitive Calculus". (2016) *International Association for Computing and Philosophy*.

Awards/ Honors

NSF GRFP Honorable Mention	Spring 2019
Duke Chancellors Scholars Fellowship	Fall 2018
Rensselaer Leadership Award	Fall 2014 - Spring 2017
Mona & Edward Zander '68 Scholarship	Fall 2014 - Spring 2017
Dean's List/Dean's Honor List	Fall 2014 - Spring 2017

Projects

SpikingNeuralNets.jl
A flexible system for simulating arbitrary systems of spiking neural networks.
ARCADIA
A computational framework for attention-centered cognitive modeling. **MetaProver**
A framework for automated logical and meta-logical reasoning via analytic tableaux
OSCAR
A restoration of John Pollock's nonmonotonic natural deduction theorem prover

Technical Skills

- Python, R, C/C++, Java/Javascript, Clojure/Scheme/Lisp, Julia, MATLAB, HTML/CSS, Prolog, Unix, Git
- Software development, verification, and visualization
- Mixed-effect modeling and Bayesian statistics
- Artificial Intelligence (Cognitive modeling, ML, Symbolic AI, NLP)
- Parallel/High-Performance Computing

References

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Psychology & Neuroscience
Center for Cognitive Neuroscience
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John Pearson, Ph.D.
Assistant Professor
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