Kevin G. O'Neill

June 2021
kevin.oneill@duke.edu
(267) 377-9085
kevingoneill.github.io
0000-0001-7401-9802

Education	**Duke University**	Fall 2018 - Present
	Ph.D., Psychology & Neuroscience	GPA: 3.96
	M.A., Psychology & Neuroscience	GPA: 3.96
	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	

Teaching	**Teaching Assistant**	Spring 2021
	Research Methods & Statistics — Dr. Angela Vieth	
	Teaching Assistant	Fall 2020
	Cognitive Psychology — Dr. Ruth Day	
	Teaching Assistant	Summer 2020
	Neuromatch Academy — pod-089-solid-firefly	
	Guest Lecturer	Fall 2016 - Spring 2017
	Are Humans Rational?, *Intro To Logic* — Dr. Selmer Bringsjord	

Under Review/ In Preparation	**O'Neill, K.**, Henne, P., Pearson, J., & De Brigard, F. (In preparation). A unified model of confidence in causal judgment.
	Khoudary, M., Hanna, E., **O'Neill, K.**, Iyengar, V., Clifford, S., De Brigard, F., Cabeza, R., & Sinnott-Armstrong, W. (In preparation). A functional neuroimaging investigation of moral foundations theory.
	Henne, P., & **O'Neill, K.** (Under review). Double Prevention and Counterfactual Thinking.
	Murray, S., Henne, P., **O'Neill, K.**, Wang, J., & De Brigard, F. (Under review). What you foresee isn't what you forget: No evidence for the influence of epistemic states on causal judgments for abnormal negligent behavior.

Krasich, K., **O'Neill, K.**, & De Brigard, F. (Under review). Eye tracking mental simulations during retrospective causal reasoning. 📄 ✿ ○

O'Neill, K., Henne, P., Bello, P., & De Brigard, F. (Under review). Degrading Causation. 📄 ✿ ○ ○

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

Journal Papers	Henne, P., **O'Neill, K.**, Bello, P., Khemlani, S., & De Brigard, F. (2020). Norms Affect Prospective Causal Judgments. *Cognitive Science.* 📄 ✿
	O'Neill, K., Smith, A. P., Smilek, D., & Seli, P. (2020). Dissociating the Freely-Moving Thought Dimension of Mind-Wandering from the Intentionality and Task-Unrelated Thought Dimensions. *Psychological Research.* 📄 ✿
	Seli, P., **O'Neill, K.**, Carriere, J. S., Smilek, D., Beaty, R. E., & Schacter, D. L. (2020). Mind-wandering across the age gap: Age-related differences in mind-wandering are partially attributable to age-related differences in motivation. *The Journals of Gerontology: Series B.* 📄 ✿
	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* (pp. 235–260). 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. *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. *AAAI Spring Symposium: Towards Conscious AI Systems.* 📄
	O'Neill, K., Bridewell, W., & Bello, P. (2018). Time-Based Resource Sharing in ARCADIA. *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. *Proceedings of the 40th Annual Meeting of the Cognitive Science Society.* 📄

Presentations	**O'Neill, K.**, Henne, P., Bello, P., Pearson, J., De Brigard, F. (2021). "Degrading Causation". *XPhi Europe.*

O'Neill, K., Henne, P., Bello, P., Pearson, J., De Brigard, F. (2021). "Degrading Causation". *Society for Philosophy and Psychology Annual Meeting.*

Khoudary, M., Hanna, E., **O'Neill, K.**, Iyengar, V., Clifford, S., Cabeza, R., De Brigard, F., Sinnott-Armstrong, W. (2021). "A Functional Neuroimaging Investigation of Moral Foundations Theory". *Society for Philosophy and Psychology Annual Meeting.*

Khoudary, M., Hanna, E., **O'Neill, K.**, Iyengar, V., Clifford, S., Cabeza, R., De Brigard, F., Sinnott-Armstrong, W. (2020). "A Functional Neuroimaging Investigation of Moral Foundations Theory". *2020 meeting of the Cognitive Neuroscience Society.*

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 AR-CADIA". *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
	Undergraduate Research Program	Spring 2015 - Spring 2017
	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

Skills	**Programming**
	Python, R, C/C++, Java/Javascript, Clojure/Scheme/Lisp, Julia, MATLAB, HTML/CSS, Prolog, Unix, Git, LaTeX
	Data Collection/Analysis
	Behavioral, fMRI, eye tracking data
	Mixed-effect modeling, Bayesian statistics, multivariate statistics
	Artificial Intelligence
	Cognitive modeling, ML, Symbolic AI, NLP, Parallel/High-Performance Computing
	Software Engineering
	Software development, verification, and visualization
	Languages
	German (intermediate)

Service	**Duke Neuro Methods Meetings**	Fall 2020 - Present
	Founder	
	Duke Philosophy of Neuroscience Journal Club	Spring 2020 - Present
	Co-Founder	
	Duke University Neuroscience Experience (DUNE)	Spring 2020 - Present
	Volunteer	

References

Felipe De Brigard, Ph.D.
Associate Professor
Philosophy
Psychology & Neuroscience
Center for Cognitive Neuroscience
Duke University
felipe.debrigard@duke.edu
(919) 660-3028

John Pearson, Ph.D.
Assistant Professor
Biostatistics & Bioinformatics
Psychology & Neuroscience
Electrical and Computer Engineering
Center for Cognitive Neuroscience
Duke University
john.pearson@duke.edu
(919) 613-8338

Paul Bello, Ph.D.
Section Head
Intelligent Systems
Naval Center for Applied Research in Artificial Intelligence
Information Technology Division
U.S. Naval Research Laboratory
paul.bello@nrl.navy.mil