


Kevin G. O'Neill

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Education	Duke University	Fall 2018 - Present
	<i>Ph.D.</i> , Psychology & Neuroscience (anticipated 2023)	GPA: 3.96
	<i>M.A.</i> , 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
<i>Bachelor of Science</i> , 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., Pearson, J., & De Brigard, F. (In preparation). A unified model of confidence in causal judgment.
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Krasich, K., **O'Neill, K.**, Murray, S., Nuthmann, A., & De Brigard, F. (In preparation). A mind lively and at ease: What fixation durations say about the extent of visual processing.

Khoudary, M., **O'Neill, Kevin**, Faul, L., Murray, S., Smallman, R., & De Brigard, F. (In preparation). Neural differences in dispositional versus situational-based counterfactual thoughts.

Khoudary, M., Hanna, E., **O'Neill, K.**, Iyengar, V., Clifford, S., De Brigard, F., Cabeza, R., & Sinnott-Armstrong, W. (Under review). 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). Confidence and


Journal Papers


O'Neill, Kevin, Liu, A., Yin, S., Brady, T., & De Brigard, F. (2021). Effects of category learning strategies on recognition memory. *Memory & cognition*, 1–15.   

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-millennium 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*. 

Talks

O'Neill, K., Henne, P., Bello, P., Pearson, J., De Brigard, F. (2021). “Degrading Causation“. *Invited talk at Causal Cognition Lab, UCL*.

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

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 AR-CADIA". *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*.

**Poster
Presentations**

O'Neill, K., Henne, P., Bello, P., Pearson, J., De Brigard, F. (2021). "Confidence Effects on Causal Judgment". *Psychonomics*.

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*.

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.

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*.

Teaching

Teaching Assistant

Psychology of Imagination — Dr. Tamar Kushnir Fall 2021

Research Methods & Statistics — Dr. Angela Vieth Spring 2021

Cognitive Psychology — Dr. Ruth Day Fall 2020

Neuromatch Academy — pod-089-solid-firefly Summer 2020

Guest Lecturer

Are Humans Rational? — Dr. Selmer Bringsjord Fall 2016 - Spring 2017

Intro To Logic — Dr. Selmer Bringsjord Fall 2016 - Spring 2017

Mentorship	Maria Khoudary <i>A Functional Neuroimaging Investigation of Moral Foundations Theory</i> Duke University	2020-2021
	Jason Chen, Corey Elowski, Maria Khoudary, Cambria Revsine <i>Predicting fMRI Responses: a Machine Learning Approach</i> Neuromatch Academy	2020
	Georgia Hadjis, Anna Dorokhova, Alex Vargas, Wen Jian, Sarah Hanson <i>Predicting Social Task Performance and Brain Activities Based on Emotional Task and Relational Task: an Analysis of the HCP Dataset</i> Neuromatch Academy	2020
Awards/ Honors	NSF GRFP Honorable Mention	Spring 2019
	Duke Chancellors Scholars Fellowship	Fall 2018
	Undergraduate Research Fellowship	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, L ^A T _E X	
	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 Founder	Fall 2020 - Present
	Duke Philosophy of Neuroscience Journal Club Co-Founder	Spring 2020 - Present
	Duke University Neuroscience Experience (DUNE) Volunteer	Spring 2020 - Present

Cognitive Systems Research
Ad-Hoc Reviewing

Affiliations	Association for the Advancement of Artificial Intelligence (AAAI)
Past & Present	Cognitive Science Society (CSS)
	International Association of Computing and Philosophy (IACAP)
	Psychonomic Society

References	Felipe De Brigard, Ph.D. <i>Associate Professor</i> Philosophy Psychology & Neuroscience Center for Cognitive Neuroscience Duke University felipe.debrigard@duke.edu (919) 660-3028	John Pearson, Ph.D. <i>Assistant Professor</i> 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. <i>Section Head</i> Intelligent Systems Naval Center for Applied Research in Artificial Intelligence Information Technology Division U.S. Naval Research Laboratory paul.bello@nrl.navy.mil	