Sean R. O'Bryan, PhD

Curriculum Vitae

sobryan@bard.edu • 806.500.1183

Bard College • Psychology Program • Division of Science, Mathematics, and Computing
30 Campus Rd • Annandale-on-Hudson, NY 12504

Academic Appointments

Bard College, Annandale-on-Hudson, NY
Assistant Professor of Psychology, 2025 – present

Brown University, Providence, RI
Postdoctoral Research Associate, 2021 – 2025

University of Missouri - Kansas City, Kansas City, MO
Project Coordinator – UMKC Clinical Neuropsychology Lab, 2012 – 2014

Education

Texas Tech University, Lubbock, TX
Ph.D. in Experimental Psychology, 2021

Illinois Wesleyan University, Bloomington, IL
B.A. in Psychology, *Cum Laude*, 2012

Publications

O'Bryan, S.R., & Song, J.-H. (In press). Visual attention as an integrated sensorimotor process. *Behavioural and Brain Sciences*.

O'Bryan, S.R., Moher, J., McCarthy, J.D., & Song, J.-H. (2024). Effector-independent representations guide sequential target selection biases in action. *Journal of Cognitive Neuroscience*, 36: 492-507.

O'Bryan, S.R., Jung, S., Mohan, A.J., & Scolari, M. (2024). Category learning selectively enhances representations of boundary-adjacent exemplars in early visual cortex. *The Journal of Neuroscience*, 44: 1-13.

O'Bryan, S.R., Price, M.M., Alquist, J.L., Davis, T., & Scolari, M. (2024). Changes in pupil size track self-control failure. *Experimental Brain Research*, 242: 829-841.

O'Bryan, S.R. & Scolari, M. (2021). Phasic pupillary responses modulate object-based attentional prioritization. *Attention, Perception, & Psychophysics*, 83: 1491-1507.

Watson, J.L., Hirshorn-Johnston, R., **O'Bryan, S.R.**, & Davis, T. (2019). Fitzmaurice Voicework pilot study with fMRI. *Voice and Speech Review*, 13: 152-172.

O'Bryan, S.R., Worthy, D.A., Livesey, E.J., & Davis, T. (2018). Model-based fMRI reveals dissimilarity processes underlying base rate neglect. *eLife*, 7: 36395.

O'Bryan, S.R., Walden, E., Serra, M.J., & Davis, T. (2018). Rule activation and ventromedial prefrontal engagement support accurate stopping in self-paced learning. *NeuroImage*, 172: 415-426.

Bruce, J., Bruce, A., Lynch, S., Strober, L., **O'Bryan, S.R.**, Sobotka, D., Thelen, J., Ness, A., Glusman, M., Goggin, K., Bradley-Ewing, A., & Catley, D. (2016). A pilot study to improve adherence among MS patients who discontinue treatment against medical advice. *Journal of Behavioral Medicine*, 39: 276-287.

Roberg, B.L., Bruce, J.M., Feaster, H.T., **O'Bryan, S.R.**, Westervelt, H.J., & Glusman, M. (2015). Speedy eye movements in multiple sclerosis: associations with performance on visual and nonvisual cognitive tests. *Journal of Clinical and Experimental Neuropsychology*, 37: 1-15.

Manuscripts Under Review

Jung, S., **O'Bryan, S.R.**, & Scolari, M. (Under review). The role of the frontoparietal attention network during rule-based categorization. Preprint: https://osf.io/preprints/osf/7rghf

O'Bryan, S.R., Liddy, J.J., & Song, J.-H. (Under review). Systematic modulation of sensorimotor learning by domain-specific working memory. Preprint: https://www.biorxiv.org/content/10.1101/2025.04.11.648414v2

Liddy, J.J., **O'Bryan, S.R.**, *Daskalopolous, A., & Song, J.-H. (Under review). Automatic but not inflexible: Implicit adaptation is modulated by goal-directed attentional demands. Preprint: https://osf.io/preprints/psyarxiv/jbt9p_v1

Manuscripts In Preparation

* Indicates undergraduate supervised

*Kemball-Cook, W., **O'Bryan, S.R.**, Scolari, M., & Song, J.-H. Deconstructing the task-evoked pupillary response. (In prep).

O'Bryan, S.R., Liddy, J.J., & Song, J.-H. Task-evoked pupil diameter as an index of explicit control in sensorimotor adaptation. (In prep).

O'Bryan, S.R., McCarthy, J.D., Moher, J. & Song, J.-H. Neural mechanisms underlying salient distractor suppression in goal-directed action. (In prep).

Poster Presentations

*Zhussubali, A., **O'Bryan, S.R.**, & Song, J.-H. (2024, October). Dual-task interference enhances implicit learning in visuomotor adaptation. New England Psychological Association (NEPA) Annual Meeting, Springfield, MA.

*Artykbayeva, A., **O'Bryan, S.R.**, & Song, J.-H. (2024, August). Predicting learning outcomes through machine learning models trained on pupil size. 2024 Brown University Undergraduate Research Symposium, Providence, RI.

O'Bryan, S.R., *Kemball-Cook, W., & Song, J.-H. (2024, May). Deconstructing the task-evoked pupillary response. Vision Sciences Society 24th Annual Meeting, St. Pete Beach, FL.

^*Kemball-Cook, W., **O'Bryan, S.R.**, & Song, J.-H. (2024, May). Representation-specific and general components of the task-evoked pupillary response in visual working memory. Vision Sciences Society 24th Annual Meeting, St Pete Beach, FL.
^*Received VSS Student Travel Award*

*Kemball-Cook, W., **O'Bryan, S.R.**, & Song, J.-H. (2023, October). Pupil dilation velocity as a reliable index of cognitive effort. New England Psychological Association (NEPA) Annual Meeting, Worcester, MA.

*Wang, A., **O'Bryan, S.R.**, & Song, J.-H. (2023, August). History of motor precision predicts learning in new disrupted environments. 2023 Brown University Undergraduate Research Symposium, Providence, RI.

*Zhussubali, A., **O'Bryan, S.R.**, & Song, J.-H. (2023, August). Dual-task interference enhances implicit learning in visuomotor adaptation. 2023 Brown University Undergraduate Research Symposium, Providence, RI.

O'Bryan, S.R., Liddy, J., & Song, J.-H. (2023, May). The domain-specific contribution of working memory to sensorimotor learning. Vision Sciences Society 23rd Annual Meeting, St. Pete Beach, FL.

O'Bryan, S.R., Liddy, J., & Song, J.-H. (2022, Nov). Spatial working memory capacity modulates the association between effort and performance in visuomotor adaptation. Psychonomics Society 63rd Annual Meeting, Boston, MA.

O'Bryan, S.R., Moher, J., & Song, J.-H. (2022, Nov). Neural substrates of target selection for action guided by selection history. OPAM 30, Boston, MA.

Jung, S., **O'Bryan, S. R.**, & Scolari, M. (2022, Nov). Reconstructing neural representations during category learning in intraparietal sulcus. Society for Neuroscience Annual Meeting, San Diego, CA.

^**O'Bryan, S.R.**, Liddy, J., & Song, J.-H. (2022, May). Task-evoked pupil diameter reveals working memory-based strategy modulation in visuomotor adaptation. Vision Sciences Society 22nd Annual Meeting, St. Pete Beach, FL.
^*Received NEI Early Career Scientist Award*

O'Bryan, S.R., Mohan, A.J., *Nguyen, H., Davis, T., & Scolari, M. (2019, May). Category learning enhances visual perception at the boundary. Presented at the Vision Sciences Society 19th Annual Meeting, St. Pete Beach, FL.

Davis, T., **O'Bryan, S.**, & Kelley, A. (2019, March). Optimizing preprocessing and confound regression procedures for rapid single-trial multivoxel pattern analysis. 2019 Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

O'Bryan, S. & Scolari, M. (2017, May). Sequential sampling in visual attention. Vision Sciences Society 17th Annual Meeting, St. Pete Beach, FL.

O'Bryan, S., Livesey, E., & Davis, T. (2017, March). Activation of paired associates predicts cue revaluation in causal learning. 2017 Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

*Morris, K., **O'Bryan, S.,** Livesey, E., Worthy, D.A., and Davis, T. (2017, March). Ventromedial prefrontal cortex tracks subjective expectancy in a gambler's fallacy task. 2017 Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

O'Bryan, S., Walden, E., Serra, M.J., *Gierstorfer, S., & Davis, T. (2016, April). Reactivation strength underlies successful stopping in self-paced learning. 2016 Cognitive Neuroscience Society Annual Meeting, New York, NY.

^**O'Bryan, S.R.** & Davis, T. (2015, March). Leveraging object selectivity to model the role of learned selective attention in base-rate neglect. 2015 Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.
^*Received CNS Graduate Student Award*

O'Bryan, S.R., Roberg, B.L., Tangeman, L., Williams, B., Mavis, C., Glusman, M., Ray, C., Neidinger, S., & Bruce, J. (2015, February). Slowed saccadic eye movements in multiple sclerosis. 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO.

*Neidinger, S., **O'Bryan, S.**, Ray, C., Roberg, B., Mavis C., Ehana, J., Bruce, A., Catley, D, Strober, L., Bradley-Ewing, A., Lynch, S., Ness, A., Glusman, M., Goggin, K., & Bruce, J. (2015, February). Conscientiousness and depression are related to the ability to delay gratification in multiple sclerosis. 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO.

Roberg, B., Bruce, J., Tangeman, L., Williams, B., Mavis, C., Ray, C., Neidinger, S., **O'Bryan, S.**, Lynch, S. (2015, February). Differences in theory-of-mind abilities between multiple sclerosis subtypes. 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO.

O'Bryan, S.R. & Davis, T. (2014, October). Base-rate modulates activation in object selective cortex during cue learning. Presented at The Southwest Cognition Conference (Armadillo), Norman, OK.

*Mavis, C.J., **O'Bryan, S.R.,** Roberg, B.L., Tangeman, L., Williams, B., Lynch, S., & Bruce, J.M. (2014, September). Incidental recall performance on a processing speed test is associated with verbal memory abilities in multiple sclerosis. Presented at the Sixth triennial Joint ACRTIMS-ECTRIMS Meeting, Boston, MA.

*Ray, C., **O'Bryan, S.** Mavis, C., Ehana, J., Neidinger, S., Bruce, A., Catley, D., Strober, L., Bradley-Ewing, A., Lynch, S., Goggin, K., Ness, A., Glusman, M., Bruce, J. (2014, September). Personality traits are associated with the quality of patient provider relationships in multiple sclerosis. Sixth triennial 2014 Joint ACTRIMS-ECTRIMS Meeting, Boston, MA.

Ness, A., Glusman, M., **O'Bryan, S.**, Bruce, A., Bradley-Ewing, A., Catley, D., Lynch, S., Sobotka, D., Strober, L., Bruce, J. (2014, April). Understanding belief in alternative medicine among MS patients. 35th Annual Meeting of The Society of Behavioral Medicine, Philadelphia, PN.

Wilson, L., Williams, B., Roberg, B., **O'Bryan, S.**, Glusman, M., Ness, A., Hancock, L., Feaster, T., Lynch, S., & Bruce, J. (2014, April). Outdoor Temperature and Cognition in Multiple Sclerosis. Presented at the 35th Annual Meeting of the Society of Behavioral Medicine, Philadelphia, PN.

O'Bryan, S.R., Roberg, B.L., Glusman, M., Ness, A., Thelen, J., Wilson, L., Feaster, T., & Bruce, J. (2013, October). Speeded eye tracking is associated with visual and non-visual neuropsychological test performance in multiple sclerosis. 33rd Annual Conference of the National Academy of Neuropsychology, San Diego, CA. [Abstract]. *Archives of Clinical Neuropsychology*, 28: 561.

O'Bryan, S.R., Glusman, M., Catley, D., Bruce, A.S., Bradley-Ewing, A., Goggin, K., Ness, A., Roberg, B.L., Lynch, S., Sobotka, D., Strober, L., Armstrong, J., & Bruce, J.M. (2013, June). Feasibility of a motivational intervention to improve treatment adherence in multiple sclerosis. Presented at the Frontiers 2013 Research Symposium: Integrating Technology into Translational Research, Kansas City, MO.

O'Bryan, S.R. & Williams, J. (2012, April). Frontal midline theta as an index of emotional modulation in working memory. Presented at the John Wesley Powell student conference at Illinois Wesleyan University, Bloomington, IL.

Research Talks

O'Bryan, S.R., & Song, J.-H. (2025, May). Leveraging pupil diameter to track explicit control processes in visuomotor adaptation. Talk presented at the 25th Vision Sciences Society annual meeting, St. Pete Beach, FL.

Vaughn, J., Jung, S., **O'Bryan, S.R.**, Davis, T. & Scolari, M. (2025, May). The rostrolateral prefrontal cortex is activated during distinct, rule-based visual categorization tasks. Talk presented at the 25th Vision Sciences Society annual meeting, St. Pete Beach, FL.

O'Bryan, S.R. & Song, J.-H. (2024, March). Cognitive mechanisms of sensorimotor learning. Invited talk presented at the Cognitive Control of Action (CoCoA) Workshop, Princeton University, Princeton, NJ.

O'Bryan, S.R. (2023, November). Spatial working memory capacity and pupil diameter track learning dynamics in visuomotor adaptation. Invited talk presented at the Brown University Perception & Action Seminar Series, Providence, RI.

O'Bryan, S.R. (2021, December). Decoding the role of learned selective attention in categorization and predictive inference. Invited talk presented at the Brown University Perception & Action Seminar Series, Providence, RI.

Scolari, M., & **O'Bryan, S.R.** (2020, May). Phasic pupillary responses modulate object-based attentional prioritization. Talk presented at the 2020 Vision Sciences Society annual meeting, St. Pete Beach, FL.

Alquist, J., **O'Bryan, S.R.**, Price, M.M., Davis, T., & Scolari, M. (2020, February). The role of norepinephrine in self-control failure. Data blitz presented at the SPSP Self and Identity preconference, New Orleans, LA.

O'Bryan, S.R., Livesey, E.J., Worthy, D.A., & Davis, T. (2019, October). Associative retrieval modulates causal attributions in retrospective revaluation. Talk presented at the Society for Neuroscience annual meeting, Chicago, IL.

O'Bryan, S.R., Walden, E., Serra, M.J., *Gierstorfer, S., & Davis, T. (2016, June). Reactivation strength underlies successful stopping in self-paced learning. Talk presented at the Interdisciplinary Symposium on Decision Neuroscience (ISDN), Philadelphia, PN.

Funding

NASA Rhode Island Established Program to Stimulate Competitive Research (EPSCoR) Seed Grant
Project Title: *Enhancing cognitive performance monitoring for long-term space missions*
PI: J.-H. Song Co-I: **O'Bryan**
Status: Funded ($35,003, 6/15/2025 – 5/31/2026)

Brown University Seed Award
Project Title: *Mechanisms integrating mental and sensorimotor workspaces*
PI: J.-H. Song Co-I: **O'Bryan**
Status: Funded ($50,000; 2/3/2023 – 6/30/2024)

Departmental Research Grant, Texas Tech University
Project Title: *Reconstructing neural sensitivity functions to quantify the effects of category learning on visual perception*
PI: **O'Bryan**
Status: Funded ($2,910; 6/1/2021 – 8/6/2021)

Honors

National Eye Institute Early Career Scientist Award, Vision Sciences Society (2022)

Outstanding Article Award for *Fitzmaurice Voicework Pilot Study with fMRI,* Association for Theatre in Higher Education (2020)

Outstanding Research Award –Experimental Psychology, Texas Tech Univ. (2018)

Clay E. George Scholarship, Texas Tech University (2015 – 2016)

Graduate Student Award, Cognitive Neuroscience Society (2015)

Alumni Scholarship, Illinois Wesleyan University (2008 – 2012)

Teaching

Bard College

PSY 234 – Learning and Memory
Fall 2025

PSY 141 – Introduction to Psychological Science
Fall 2025

Texas Tech University

PSY 5447 – Advanced Correlational Methods and Factor Analysis Laboratory
Spring 2021 (2 sections)
Spring 2019

PSY 4327 – Cognitive Neuroscience
Fall 2019
Fall 2018

PSY 1300 – Introduction to Psychology (Online)
Fall 2019

Mentorship

Amira Artykbayeva, 2024 – 2025 (Brown Undergraduate Teaching and Research Award (UTRA) recipient; "*Predicting learning outcomes through machine learning models trained on pupil size*")

Anel Zhussubali, 2022 – 2025 (Brown UTRA award recipient; "*Dual-task interference enhances implicit learning in visuomotor adaptation*")

Lewis Nunez Severino, 2024 (Brown Neuroscience PhD student; "*Transfer of statistical learning in goal-directed action*")

Devraj Raghuvanshi, 2024 (Brown Data Science Masters student; "*Generalized predictive modeling of human performance via pupillometry*")

Anne Wang, 2023 – 2024 (Brown UTRA award recipient; "*History of motor precision predicts learning in new disrupted environments*")
Current position: Research Assistant, Brown Pandemic Research Center

Will Kemball-Cook, 2023 – 2024 (Brown UTRA award recipient, "*Pupil dilation velocity as a reliable index of cognitive effort*")
Current position: Medical Student, Albert Einstein College of Medicine

Alex Daskalopoulos, 2021 – 2023 (Brown UTRA award recipient, "*The effects of divided attention on implicit visuomotor adaptation*")
Current position: Research Assistant, National Institute on Aging (NIH-NIA)

Service & Outreach

Brown Brain Fair (2023 – 2025)
Organized educational exhibits demonstrating a series of fun and surprising visual illusions to children and adults in the community, along with age-appropriate explanations about how and why the brain produces the illusion(s).

Visiting Undergraduate Research Mentor (2022)
Mentored four visiting undergraduate students from Connecticut College in a summer-long collaborative program at Brown to teach functional neuroimaging methods.

Statistics Workshop Organizer (2020)
Organized a free, University-wide virtual statistics workshop during lockdown titled *R Programming: Introduction to the Tidyverse*, attended by 100+ community members.

Graduate Student Advisory Committee (2019 – 2020)
Served in advisory role to the Department Chair as the representative for Experimental Psychology graduate students.

Graduate Student Visit Day Coordinator (2016 – 2018)
Organized visit day travel, scheduling, and social events for prospective Experimental Psychology graduate students at Texas Tech.

Ad Hoc Reviewing

Cerebral Cortex
Cognitive Sciences Society
Frontiers in Psychology
Journal of Management and Information Systems
Journal of Cognitive Neuroscience
The Journal of Neuroscience
NeuroImage
Neuropsychologia
PLoS One