# Kyle J. LaFollette

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#### **EDUCATION**

expected 2025	<b>Doctor of Philosophy, Psychology, Case Western Reserve University</b> , Cleveland, OH Specialization: Affective Neuroscience Advisor: Heath Demaree, PhD
2017	Bachelor of Science, University of Michigan, Ann Arbor, MI Majors: Cognitive Science (Decision Sciences Track) & Biopsychology
2014	Associate of Science, Oakland Community College, Farmington Hills, MI

## **RESEARCH & TRAINING COURSES**

June 30 <sup>th</sup> 2021 -	Neuromatch Academy
July 23rd 2021	Computational Neuroscience Summer School

July 29th 2019 -University of WashingtonAugust 7th 2019Mathematics of Machine Learning Summer School

# PEER REVIEWED PUBLICATIONS

- LaFollette, K. J., & Demaree, H. A. (2022). Comparing the effects of stress on directed and random exploration. In *Proceedings of the 5th Multidisciplinary Conference on Reinforcement Learning and Decision Making*.
- LaFollette, K. J., Kotynski, A. E., Merner, A. R., Lim, R., Jiang, H., & Demaree, H. A. (2021). Exposure to discrete emotions influence processes of evidence accumulation in reinforcement-learning. In T. Fitch, C., Lamm, H. Leder, & K. Teßmar-Raible (Eds.), *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43, 486-492.

### PUBLICATIONS IN PREPARATION

LaFollette, K. J., & Demaree, H. A. (Manuscript in Preparation). Algorithmic solutions to the explore-exploit dilemma under acute physiological and psychosocial stress.

- LaFollette, K. J., Kotynski, A. E., Frank, D. J., Merner, A. R., Jiang, H., Macnamara, B. N., Burns, K. J., & Demaree, H. A. (Manuscript in Preparation). Decision diffusion modeling of exploration-exploitation decision-making during the presentation of neutral and emotional images.
- LaFollette, K. J., Yuval, J., Melnikoff, D., & Goldenberg, A. (Manuscript in Preparation). Using machine learning to aid psychological model selection.
- Goldenberg, A., **LaFollette, K. J.**, Huang, Z., Weisz, E., & Cikara, M. (Manuscript in Preparation). The proportion of Black faces in the crowd increases the probability that crowd would be evaluated as emotional.

#### **INVITED TALKS & SEMINARS**

Harvard Business School, Workshop on Stan and Bayesian Generative Models – Invited talk (June, 2022)

Harvard Business School, Goldenberg & Jordan Lab – Invited talk (October, 2021).

#### **CONFERENCE TALKS & POSTER PRESENTATIONS**

- LaFollette, K. J., & Demaree, H. A. (November, 2022). Solutions to the explore-exploit dilemma vary with *perception of stress and intolerance of uncertainty*. Poster submitted to the 63rd Annual Meeting of the Psychonomic Society.
- LaFollette, K. J., Weisz, E., Cikara, M., Huang, Z., & Goldenberg, A. (May, 2022). *The ratio of Black faces in the crowd is positively associated with perception of emotion*. Talk to be presented at the 2022 Annual Convocation of the Association for Psychological Science, Chicago, IL.
- LaFollette, K. J. (April, 2022). *Latent risk behaviors predict model-based control*. Talk presented at the 94<sup>th</sup> Annual Conference of the Midwestern Psychological Association, Chicago, IL.
- LaFollette, K. J., Kotynski, A. E., Frank, D. J., Merner, A. R., Jiang, H., Macnamara, B. N., Burns, K. J., & Demaree, H. A. (November, 2021). *Toward a reinforcement learning decision diffusion model of choice behavior in the context of incidental discrete emotion*. Poster presented at the 62<sup>nd</sup> Annual Meeting of the Psychonomic Society, Virtual.
- Satterfield, B. C., Anlap, I., Esbit, S., **LaFollette, K. J.**, Lazar, M. P., & Killgore, W. D. S. (August, 2021). *Corticotropin-releasing hormone receptor 1 gene polymorphism modulates cognitive flexibility following acute stress and sleep deprivation*. Poster presented at the 2021 Military Health System Research Symposium, Virtual.
- LaFollette, K. J., Satterfield, B. C., Lazar, M. P., Esbit, S., Anlap, I., & Killgore, W. D. S. (November, 2020). *Chunking of sequence memories during high-stress sleep deprivation*. Poster presented at the 61<sup>st</sup> Annual Meeting of the Psychonomic Society, Virtual.
- LaFollette, K. J., Satterfield, B. C., Lazar, M. P., Esbit, S., Anlap, I., & Killgore, W. D. S. (August, 2020). Emotion regulation during sleep deprivation and repeated physiological stress: Implications for motor skill learning and production. Poster presented at the 34<sup>th</sup> Annual SLEEP Meeting, Virtual.
- LaFollette, K. J., Satterfield, B. C., Lazar, M. P., & Killgore, W. D. S. (October, 2019). *Disentangling the effects of subjective task load and performance on neuroendocrine stress response*. Poster presented at the 49<sup>th</sup> Annual Society for Neuroscience Meeting, Chicago, IL.

- Strong, M., Esbit, S., LaFollette, K. J., Dailey, N. S., & Killgore, W. D. S. (August, 2019). Big five personality traits and how they relate to self-perceived invincibility. Poster presented at the 2019 Military Health System Research Symposium, Kissimmee, FL.
- LaFollette, K. J., Satterfield, B. C., Esbit, S., Lazar, M. P., & Killgore, W. D. S. (August 2019). *Inadequate sleep quality and duration predicts disinhibited shooting on a "shoot/no shoot" task.* Poster presented at the 2019 Military Health System Research Symposium, Kissimmee, FL.
- LaFollette, K. J., Satterfield, B. C., Esbit, S., Lazar, M. P., & Killgore, W. D. S. (August 2019). *Self-perceived invincibility is associated with greater cognitive flexibility*. Poster presented at the 2019 Military Health System Research Symposium, Kissimmee, FL.
- **LaFollette, K. J.**, Satterfield, B. C., Esbit, S., Lazar, M. P., Grandner, M. A., & Killgore, W. D .S. (June, 2019) *Negative mood and poor sleep are associated with altered moral reasoning under stress*. Poster presented at the 33<sup>rd</sup> Annual SLEEP Meeting, San Antonio, TX.
- LaFollette, K. J., Satterfield, B. C., Esbit, S., Lazar, M. P., Grandner, M. A., & Killgore, W. D. S. (June, 2019) *The effects of prior at-home sleep duration on reversal-learning during a "shoot/no-shoot" task.* Talk presented at the 33<sup>rd</sup> Annual SLEEP Meeting, San Antonio, TX.
- Burns, A., Ozcan, M., Shepard, K. C., LaFollette, K. J., Alkozei, A., Grandner, M. A., & Killgore, W. D. S. (June, 2019) *The association between PTSD severity and insomnia is mediated by nightmares*. Poster presented at the 33<sup>rd</sup> Annual SLEEP Meeting, San Antonio, TX.
- LaFollette, K. J., Satterfield, B. C., Lazar, M. P., & Killgore, W. D. S. (February, 2019) *Stay negative?: Positive affect is associated with increased psychosocial stress reactivity.* Poster presented at the International Neuropsychological Society 47<sup>th</sup> Annual Meeting, New York, NY.
- LaFollette, K. J., Satterfield, B. C., Lazar, M. P., & Killgore, W. D. S. (February, 2019) *Predicting psychosocial stress reactivity from ability and trait-based emotional intelligence*. Poster presented at the International Neuropsychological Society 47<sup>th</sup> Annual Meeting, New York, NY.
- Satterfield, B. C., **LaFollette, K. J.**, Lazar, M. P., & Killgore, W. D. S. (February, 2019) *Prolonged psychosocial stress impairs cognitive flexibility*. Poster presented at the International Neuropsychological Society 47<sup>th</sup> Annual Meeting, New York, NY.
- Esbit, S., Satterfield, B. C., **LaFollette, K. J.**, Botello, R., Alkozei, A., & Killgore, W. D. S. (February, 2019) *High self-perceived adroitness: An altered perception of reality during sleep deprivation*. Poster presented at the International Neuropsychological Society 47<sup>th</sup> Annual Meeting, New York, NY.
- LaFollette, K. J., Satterfield, B. C., Lazar, M. P., & Killgore, W. D. S. (November, 2018) Attenuated modelbased decision making is predictive of increased psychosocial stress reactivity. Poster presented at the Society for Judgment and Decision Making 39<sup>th</sup> Annual Meeting, New Orleans, LA.
- LaFollette, K. J., Ibrahim, A., & Shah, P. (April, 2016). *The anxious math student: An exploration of the motivational predictors of math anxiety.* Poster presented at the 8<sup>th</sup> Annual California Cognitive Science Conference, University of California, Berkeley, CA.
- LaFollette, K. J., Cawley, A., & Mesa, V. (April, 2015). *Inquiry-based learning in mathematics classrooms: Finding solutions to common concerns.* Poster presented at the Annual UROP Spring Research Symposium, University of Michigan, Ann Arbor, MI.
- LaFollette, K. J., Cawley, A., & Mesa, V. (April, 2015). *Inquiry-based learning in mathematics classrooms: Faculty concerns and solutions for student presentations*. Talk presented at the Annual MichMATYC Conference, Benton Harbor, MI.

### **RESEARCH EXPERIENCE**

2020 -	Graduate Student Researcher   Affective Neuroscience Lab
Present	PI: Heath Demaree, PhD   Case Western Reserve University, Cleveland, OH
2020 -	Graduate Student Researcher   Skill Learning and Performance Lab
Present	PI: Brooke Macnamara, PhD   Case Western Reserve University, Cleveland, OH
2017 -	Research Technician   Social, Cognitive and Affective Neuroscience Lab
2020	PI: William Killgore, PhD   University of Arizona, Tucson, AZ
2019 -	Neuroscience Research Assistant   Stanford Cognitive and Systems Neuroscience Lab
2020	PI: Vinod Menon, PhD   Stanford University, Palo Alto, CA
2016 -	Undergraduate Research Assistant   Cognition, Control and Action Lab
2017	PI: Taraz Lee, PhD   University of Michigan, Ann Arbor, MI
2015 -	Undergraduate Research Assistant   Basic and Applied Cognition Lab
2016	PI: Priti Shah, PhD   University of Michigan, Ann Arbor, MI
2014 -	Undergraduate Research Assistant   Teach with Inquiry-Based Learning Project
2015	PI: Vilma Mesa, PhD   University of Michigan, Ann Arbor, MI

#### TEACHING

Fall 2021Quantitative Methods in Psychology | Case Western Reserve University<br/>Teaching Assistant

## <u>Skills</u>

**Programming** | Python, Matlab, Javascript, R, Stan, LaTeX, bash shell scripting, VBA, SLURM cluster computing, cron, HTML, PHP, CSS

**Software** | FSL, FreeSurfer, PsychoPy, E-Prime, SPSS, RStudio, REDCap, Qualtrics, Adobe Experience Manager

**Physiological Measures** | Electrocardiography, magnetic resonance imaging, magnetic resonance spectroscopy, heart rate variability, electrodermal activity, salivary cortisol testing

**Statistics** | Frequentist and Bayesian hypothesis testing, linear and nonlinear modeling, multivariate analysis, visualization, machine learning, hierarchical Bayesian modeling, Markov chain Monte Carlo

## PROFESSIONAL MEMBERSHIPS

- since 2020 Association for Psychological Science | Student Member
- since 2020 Psychonomic Society | Student Member
- since 2020 Cognitive Science Society | Student Member
- since 2020 Society for the Improvement of Psychological Science | Member
- since 2019 Society for Neuroscience | Student Member
- since 2018 Society for Judgment and Decision-Making | Member