

## EDUCATION

University of Nevada, Reno

2018-present (ABD, grad date: May 2024)

- Ph.D Integrative Neuroscience
- PIs: Michael Webster, Ph.D, Fang Jiang, Ph.D.

Illinois State University

2014-2016

- M.S. Cognitive and Behavioral Sciences
- PI: Amrita Puri, Ph.D
- Thesis: *Ensemble Coding of Semantic Information: Are Numerical Averages Generated in Parallel?*

Lycoming College

2010-2014

- B.A. Psychology, with Honors, Dean's List, Biology Minor
- Thesis: *Alcohol Consumption and College Adjustment among College Students by Generational Status*

## PUBLISHED MANUSCRIPTS

1. Richardson, A. J., **Lee, K. R.**, Crognale, M. A., & Webster, M. A. (2022). Using equiluminance settings to determine the cardinal chromatic directions for individuals. *Journal of the Optical Society of America A*, Special Issue
2. Ilic, I., **Lee, K.R.**, Mizokami, Y., Whitehead, L., & Webster, M.A. (2022). Adapting to an enhanced color gamut- implications for color vision and color deficiencies. *Optics Express*, 30(12).
3. **Lee, K.R.**, Groesbeck, E., Gwinn, O.S., Webster, M.A., & Jiang, F. (2021). Enhanced Peripheral face processing in deaf individuals. *Journal of Perceptual Imaging*, Special Issue.
4. **Lee, K.R.**, Dague, T. D., Sobel, K.V., Paternoster, N.J., & Puri, A.P. (2021). Set size and ensemble perception of numerical value. *Journal of Attention, Perception, & Psychophysics*, Special Issue.
5. **Lee, K. R.**, Webster, M.A. (2020). Environmental influences on color vision. *Encyclopedia of Color Science and Technology*, Overview Essay.
6. **Lee, K. R.**, Richardson, A. J., Walowit, E., Crognale, M. A., & Webster, M. A. (2020). Predicting color matches from luminance matches. *Journal of the Optical Society of America A*, Special Issue.
7. Qiu, C.\*, **Lee, K. R.\***, Goldstein, R., Jung, J. H., & Peli, E. (2018). De-cluttering using motion parallax improves recognition of new objects in simulated prosthetic vision. *Translational Vision Science and Technology*. \*equal contribution first author
8. **Lee, K. R.**, Sobel, K.V., York, A.K., & Puri, A. M. (2018). Dissociating parallel and serial processing of numerical value. *Journal of Numerical Cognition*, Special Issue.

9. Han, S., Qiu, C., **Lee, K. R.**, Jung, J. H., & Peli, E. (2018). Word recognition: Re-thinking prosthetic vision evaluation. *Journal of Neural Engineering*, Special Issue. doi: 10.1088/1741-2552/aac663
10. Gilbertson, R., Norton, T. R., Beery, S., & **Lee, K. R.** (2018). Web-based alcohol intervention in first-year college students: Efficacy of full-program administration prior to second semester. *Substance Use and Misuse*, doi: 10.1080/10826084.2017.1392979

## IN PREPARATION

1. **Lee, K. R.**, Webster, M. A. (2022). Assessing color similarities by phase matching.

## RESEARCH EXPERIENCE

<i>Vision Scientist Intern-Snap Inc.</i> Snap Inc. Boulder, Colorado; Adviser: Dr. Katie Tregillus	June 2023-Sept. 2023
<i>Graduate Research Assistant-Visual Perception Lab</i> University of Nevada, Reno; PI: Michael A. Webster, Ph.D	July 2018-present
<i>Graduate Research Assistant-Plasticity Lab</i> University of Nevada, Reno; PI: Fang Jiang, Ph.D	July 2018-Oct. 2019
<i>Research Assistant- Active Confocal Imaging for Visual Prostheses</i> Schepens Eye Research Institute, Mass Eye and Ear, Harvard Medical School; PIs: Eli Peli, M.Sc., O.D., Jae-Hyun Jung, Ph.D	May 2016- May 2018
<i>Graduate Research Assistant – Understanding Suspicion in Cyber Environments</i> Illinois State University funded by Air Force Research Laboratory; PI: Eric Wesselmann, Ph.D	Sept. 2015- May 2016
<i>Graduate Research Assistant – Cognitive and Perceptual Neuroscience Lab</i> Illinois State University; PI: Amrita Puri, Ph.D	Aug. 2014- May 2016
<i>Graduate Research Assistant – Production is Prediction Study</i> Illinois State University, Psycholinguistics Lab; PI: John Cooper Cutting, Ph.D	Aug. 2014- Dec. 2014
<i>Project Coordinator – Health Behavior Research</i> Lycoming College Psychology Department; PIs: Rebecca Gilbertson, Ph.D; Tina Norton, Ph.D	Aug. 2011-Apr. 2014
<i>Research Assistant – Rodent Lab</i> Lycoming College Psychology Department; PI: Rebecca Gilbertson, Ph.D	Jan. 2011-Mar. 2011; Jan. 2013-Apr. 2013

## INVITED TALKS

1. **Lee, K.R.**, Predicting color matches from luminance matches (2020).  
*University of Central Arkansas Neural Network*
2. **Lee, K.R.**, Predicting color vision from luminance matches (2020).  
*Virtual OSA Vision and Color Data Blitz: New findings in Color Perception The Optical Society*
3. **Lee, K.R.** Does Holistic Crowding of Faces Depend on Task Demands? (2016).  
*Schepens Eye Research Institute, Mass Eye and Ear, Harvard Medical School*

## RESEARCH PRESENTATIONS

Crognale, M. A., **Lee, K.R.**, Richardson, A., Webster, M.A. (September 2023). The physiology and management of individual differences in color vision. *GDC/AIC*, [Poster].

**Lee, K.R.**, Webster, M.A. Individual differences in judging facial categories. (May 2023). *Vision Sciences Society*, [Poster].

Parthasarathy, M.K., **Lee, K.R.**, Abbey, C. K., Webster, M.A. A direct measure of adaptation and visual salience. (Oct. 2022) *Optica Fall Vision Meeting*, [Poster].

Crognale, M. A., Richardson, A., **Lee, K.R.**, Webster, M.A. Using equiluminance to characterize individual differences in color vision. (July 2022). *International Color Vision Society*, [Poster].

**Lee, K.R.**, Meza, R., Webster, M.A. Color similarities assessed by phase matching. (May 2021). *Vision Sciences Society (V-VSS)*, [Virtual Poster].

Richardson, A., **Lee, K.R.**, Webster, M.A., Crognale, M. A. Can variations in luminance sensitivity predict variations in the cardinal color directions? (May 2021). *Vision Sciences Society (V-VSS)*, [Virtual Poster].

**Lee, K.R.**, Nakamura, K., Nakashima, Y., Yamaguchi, M. Y., Watanabe, K., Webster, M.A. Individual and population differences in face categories. (May 2020). *Vision Sciences Society (V-VSS)*, [Virtual Poster].

Richardson, A., **Lee, K.R.**, Crognale, M.A., Webster, M.A. How to find a tritan line, without actually trying. (May 2020). *Vision Sciences Society (V-VSS)*, [Virtual Poster].

**Lee, K.R.**, Richardson, A., Walowit, E., Crognale, M.A., Webster, M.A. Predicting color matches from luminance matches. (July 2019). *International Color Vision Society*, [Poster].

**Lee, K.R.**, Groesbeck, E., Gwinn, O. S., Jiang, F. Deaf individuals show enhanced face processing in the periphery. (May 2019). *Vision Sciences Society*, [Poster].

Richardson, A., **Lee, K.R.**, Walowit, E., Crognale, M.A., Webster, M.A. Minimum (motion) measurements of human color matching functions. (May 2019). *Vision Sciences Society*, [Poster].

**Lee, K.R.**, Qiu, C., Jung, J.H., & Peli, E. Motion parallax improves recognition of new objects presented in clutter in simulated prosthetic vision. (Sept. 2018). *OSA Vision Meeting*, [Poster].

**Lee, K.R.**, Sobel, K. V., York, A., K., & Puri, A. M. Parallel and serial processing of numerical value in digit ensembles. (May 2018). *Vision Sciences Society*, [Poster].

**Lee, K.R.**, Qiu, C., Jung, J.H., & Peli, E. Motion parallax improves recognition of stabilized object with cluttered background in simulated prosthetic vision. (May 2018). *The Association for Research in Vision and Ophthalmology (ARVO)*, [Poster].

Puri, A., & **Lee, K.R.** Estimating Numerical Averages: Ensemble Coding at the Semantic Level. (March 2017). *Southwestern Psychological Association*, [Conference Talk].

**Lee, K.R.**, Sobel, K., Cody, O., Puri, A. Ensemble Representations of Semantic Meaning: Are Numerical Averages Generated in Parallel? (Nov. 2016). *OPAM*, [Poster].

Dayer, A., \* **Lee, K.R.**, \* Chow, S., Flynn, E., & Puri, A. Does holistic face crowding depend on task demands? (May 2016). *Vision Sciences Society*, [Poster].

\*equal contribution first author and co-presenter

Puri, A., Halladay, T., **Lee, K.R.**, Romager, J. & Caselman, E. Anxiety and Accuracy of Ensemble Representations of Emotion in a Crowd. (Nov. 2015). *Psychonomic Society's Annual Meeting*, [Poster].

**Lee, K.R.**, & Puri, A. Characteristics of Visual Crowding of Faces versus Non-Face Objects. (May 2015). *Association for Psychological Science Convention*, [Poster].

Gilbertson, R., Norton, T., **Lee, K.R.**, Watsula, A., & Beery, S. The Effectiveness of Personalized Web-Based Alcohol Prevention: A Longitudinal Perspective. (June 2013). *Research Society on Alcoholism National Conference*, [Poster].

Zaman, A., **Lee, K.R.**, & Gilbertson, R. Predictors of At-Risk Drinking. (April 2012). *Eastern Colleges Science Conference*, [Poster].

## PROFESSIONAL DEVELOPMENT

*Nevada Bioinformatics Center's Machine Learning Bootcamp* Jan. 2023  
Covering fundamentals of Python for data science and supervised learning  
University of Nevada, Reno

*Reviewer* July 2022  
*Optics Express*

*Neuroscience Student Committee* Aug. 2019-present  
University of Nevada, Reno

*Frontiers for Young Minds Review Editor* Oct. 2018-2020  
University of Nevada, Reno

*Workshop in EEG Frequency-tagging in Visual Neuroscience* Sept. 24-27, 2018  
University of Nevada, Reno

*International Colour Vision Society Summer School 2018* July 30-Aug. 3, 2018  
Pembroke College, Oxford, UK

## TEACHING EXPERIENCE

Teacher PSY/NS Perception 405 July-Aug. 2020  
University of Nevada, Reno

Teaching Assistant PSY/NS Perception 405 Aug. 2019-present  
University of Nevada, Reno

Teacher PSY 392 Senior Seminar Jan. 2016-May 2016  
Illinois State University

Teaching Assistant PSY 331 Research Methods Jan. 2015- May 2016  
Illinois State University

Teaching Assistant PSY 101 intro Aug. 2011-Apr. 2014  
Lycoming College

## TECHNICAL PROFICIENCY

<i>Programming</i>	Matlab, Python, R, Overleaf
<i>EEG</i>	Biosemi activeTwo, BrainVision actiCHamp
<i>Psychophysics</i>	Psychtoolbox, SPSS
<i>Virtual Reality</i>	Oculus Rift
<i>Eye Tracking</i>	Eyelink 1,000, Tobii
<i>Camera Systems</i>	Lytro Illum Light Field, Wicab's BrainPort V100, V200, VisionPro, and Workstation Systems
<i>Survey design</i>	Qualtrics, SurveyMonkey

## LEADERSHIP AND SCHOLASTIC HONORS

Rick M. Gardner Scholarship University of Nevada, Reno Psychology Department	2021
Elsevier/Vision Research Virtual Travel Award for VSS Vision Sciences Society	2021
Big sister volunteer Big Brothers Big Sisters of Northern Nevada	2019-2022
ICVS Student Travel Award International Colour Vision Society	2019
Graduate Dean's Merit Scholarship University of Nevada, Reno	2018-2019
Massachusetts State Science Olympiad Framingham State University	2017, 2018
J. Milton Skeath Award in Psychology Lycoming College	2014

## REFERENCES

### **Michael A. Webster, Ph.D.**

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University of Nevada, Reno  
Psychology Department  
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### **Eli Peli, MSc, OD**

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Mass Eye and Ear, Schepens Eye Research Institute  
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