

Thomas A. Langlois, Ph.D, M.S

APPOINTMENTS

University of Texas, Austin Postdoctoral Fellow, Center for Perceptual Systems (CPS)	2023-Current
Princeton University Postdoctoral Research Associate, Department of Computer Science	2020 - 2023
Max Planck Institute for Empirical Aesthetics (MPIEA) Visiting Researcher	2020 - 2023
Princeton University Visiting Postdoctoral Research Associate, Department of Psychology	2018 - 2020
University of California, Berkeley Postdoctoral Scholar, Helen Wills Neuroscience Institute (HWNI)	2018 - 2020
University of California, Berkeley Postdoctoral Scholar, Social Science Matrix	2018 - 2019

EDUCATION

University of California, Berkeley Ph.D. Psychology – Cognition Program Computational Cognitive Science Lab Advised by: Thomas L. Griffiths	2018
University of California, Berkeley M.S. Computer Science, Electrical Engineering and Computer Sciences (EECS)	2018
Georgetown University , Georgetown College, Washington, DC B.A. , Psychology & B.A. Studio Art & Art History	2008

JOURNAL ARTICLES & CONFERENCE PAPERS

Langlois, T.A., Charlton, J., Goris, R. (2023). Bayesian Inference by Visuomotor Neurons in Prefrontal Cortex. (in preparation).

Langlois, T.A., Jacoby, N., Griffiths, T. (2023). 3D Memory Priors Reflect Communicative Efficiency not Statistical Frequency. (in preparation).

Griffiths, T.L., Sanborn, Adam N., Marjeh, R., **Langlois, T.A.**, Xu, J., Jacoby, N. (2023). Bayesian models of cognition: Reverse-engineering the mind. Chapter 10: Estimating Subjective Probability Distributions. In MIT Press.

Marjeh, R., Sucholutsky, I., **Langlois, T.A.**, Jacoby, N., Griffiths, T. (2023). Analyzing Diffusion as Serial Reproduction. In International Conference on Machine Learning (ICML).

Langlois, T. A.*, Zhao, H.C.*, Grant, E., Dasgupta, I., Griffiths, T. & Jacoby, N. (2021). Passive Attention In Neural Networks Predicts Human Visual Selectivity. *Advances in Neural Information Processing Systems (NeurIPS)*, 35. **Accepted (Oral)**

Langlois, T. A.*, Jacoby, N.*, Suchow, J., & Griffiths, T. (2021). Serial Reproduction Reveals the Geometry of Visuospatial Representations. *Proceedings of the National Academy of Sciences (PNAS)*, 118(13).

Langlois, T. A., Jacoby, N., Suchow, J., & Griffiths, T. (2019). Orthogonal multi-view three-dimensional object representations in memory revealed by serial reproduction. *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. **paper and poster**

Langlois, T. A.*, Jacoby, N.*, Suchow, J., & Griffiths, T. (2017). Uncovering visual priors in spatial memory using serial reproduction. *Proceedings of the 39th Annual Conference of the Cognitive Science Society*. **paper and talk**

Palmer, S. E. & **Langlois, T. A.** (2017) Effects of implied motion and facing direction on positional preferences in single-object pictures. *Perception*, 46(7), 815-829.

Palmer, S. E., **Langlois, T. A.**, & Schloss, K. B. (2016). Music-to-color associations of single-line piano melodies in non-synesthetes. *Multisensory Research*, 29(1-3), 157-193.

*Authors who equally contributed to a publication are marked with a **

POSTERS

Langlois, T.A., Charlton, J., Goris, R. (2023). Bayesian Inference by Visuomotor Neurons in Prefrontal Cortex. Program/poster No. PSTR433.21. 2023 Society for Neuroscience Meeting. Washington, DC: Society for Neuroscience, 2023.

Langlois, T. A., Jacoby, N., Griffiths, T. (2022). 3D Memory Priors Reflect Communicative Efficiency not Statistical Frequency. Presented at the 12st Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL, May 2022.

Langlois, T. A.*, Zhao, H.C.*, Grant, E., Dasgupta, I., Griffiths, T. & Jacoby, N. (2021). Passive Attention In Neural Networks Predicts Human Visual Selectivity. *Advances in Neural Information Processing Systems (NeurIPS)*, 35.

Langlois, T. A., Jacoby, N., Suchow, J., & Griffiths, T. (2019). Orthogonal multi-view three-dimensional object representations in memory revealed by serial reproduction. *Proceedings of the 41st Annual Conference of the Cognitive Science Society*.

Langlois, T. A., **Jacoby, N.**, Suchow, J., & Griffiths, T. (2019). Biases in Visual Memory Reflect Precision not Prototypes. Presented at the 18th Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL, May 2019.

Langlois, T. A., Peterson, J. C., & Palmer, S. E.. (2015). Relations among Visual Texture, Musical Features, and Emotion. Presented at the 14th Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL, May 2015.

Peterson, J. C., **Langlois, T. A.**, & Palmer, S. E. (2014). The texture of musical sounds: Cross-modal associations from musical timbres and intervals to visual textures. Presented at the 13th Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL, May 2014.

Langlois, T. A., Peterson, J. C., & Palmer, S. E. (2014). Visual Texture, Music, and Emotion. Presented at the 13th Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL, May 2014.

Langlois, T. A., Karen B. Schloss, & Palmer, S. E. (2013). Color, Music, Emotion, and Synesthesia. Presented at the 12th Annual Meeting of the Vision Sciences Society, Naples, FL, May 2013.

Langlois, T. A., Jonathan Sammartino & Palmer, S. E. (2012). Effects of Object Facing Direction and Implied Motion on Preferences for Spatial Composition (2012). Presented at 11th Annual Meeting of the Vision Sciences Society, Naples, FL, May, 2012.

Palmer, S. E., **Langlois, T. A.**, Tsang, T., Schloss, K. B., Levitin, D. J., Color, Music, and Emotion (2011). Presented at the 10th Annual Meeting of the Vision Sciences Society, Naples, FL, May, 2011.

INVITED TALKS & PRESENTATIONS

Stanford University Wu Tsai Neurosciences Institute, January 2023
Redwood Center for Theoretical Neuroscience, University of California, Berkeley, December 2021
Harvard University, Harvard Vision Lab, December 2021
Max Planck Institute for Empirical Aesthetics (MPIEA), Frankfurt, October 2021
NYU ConCats, New York City, October 2021
Facebook Research Labs (AR/VR), New York City, 2020
Max Planck Institute for Empirical Aesthetics (MPIEA), Frankfurt, November 2019
Proceedings of the 41st Annual Conference of the Cognitive Science Society, Montreal, July 2019
Princeton University ImageX Labs (PIXL) lunch talk, Princeton University, Princeton, May 2018
Proceedings of the 39th Annual Conference of the Cognitive Science Society, London, July 2017
Redwood Center for Theoretical Neuroscience, University of California, Berkeley, April, 2017

CONTRIBUTED & DEPARTMENTAL TALKS

Presidential Scholars in Society and Neuroscience (PSSN), Columbia University, April, 2018

TEACHING

University of California, Berkeley

Graduate Student Instructor (GSI)

Methods for Research in Psychological Sciences (PSYCH 102)

Fall 2017

University of California, Berkeley

Graduate Student Instructor (GSI)

Perception (COGSCI 126)

Spring 2017

University of California, Berkeley

Graduate Student Instructor (GSI)

Computational Models of Cognition (COGSCI 131)

Fall 2016

University of California, Berkeley

Graduate Student Instructor (GSI)

Research and Data Analysis in Psychology (PSYCH 101)

Spring 2016

University of California, Berkeley

Graduate Student Instructor (GSI)

Research and Data Analysis in Psychology (PSYCH 101)

Spring 2015

University of California, Berkeley

Graduate Student Instructor (GSI)

Research and Data Analysis in Psychology (PSYCH 101)

Fall 2014

University of California, Berkeley

Graduate Student Instructor (GSI)

Drugs and the Brain (PSYCH C19)

Fall 2013

University of California, Berkeley

Graduate Student Instructor (GSI)

General Psychology (PSYCH 1)

Fall 2012

AD-HOC REVIEWER

Conference on Computer Vision and Pattern Recognition (CVPR)

Neural Information Processing Systems (NeurIPS)

Journal of Experimental Psychology: Human Perception and Performance