

# Timothy G. Shepard

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The Ohio State University  
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## EDUCATION

Ph.D. in Psychology-Perception August 2016  
*Northeastern University-Boston, MA (Dr. Rhea T. Eskew)*

- Dissertation thesis: "Detection, Color Matching, and Discrimination: An Exploration of the Nature and Number of Chromatic Mechanisms"

M.A. Psychology May 2013  
*Northeastern University-Boston, MA (Dr. Rhea T. Eskew)*

- Master's thesis: "Chromatic Detection and Discrimination: Higher order Chromatic Mechanisms"
- Honorable Mention—NSF Graduate Research Fellowship (GRFP) "Chromatic Detection and Discrimination"
- Northeastern University Travel Grant (2011-2016)
- Northeastern University Graduate Student Government Travel Award (2011-2015)

B.A. Psychology June 2007  
*UMASS-Boston, MA*

- Graduated Summa Cum Laude (GPA 3.97)
- Dean's list: 2004-2007
- Senior Honors Thesis 'Illuminating the Shadow Economy of Dark Attention'
- Psi Chi Member 2005-present (Vice President 2005-2007)
- Cognitive Science Club Treasurer 2006-2007

*Harvard Extension School-Cambridge, MA* August 2004

## PUBLICATIONS

Shepard, T., Swanson, E., McCarthy, L., Eskew, R. (2016) A model of selective masking in chromatic detection. *Journal of Vision* 2016;16(9):3.

Shepard, T., Shavit, A., Veldhuizen, M., Marks, L. (submitted) *Contextual Effects in Judgments of Taste Intensity: Contrast Yes, Assimilation No*. *Chemical Senses*

Shepard, T. G., Veldhuizen, M. G., & Marks, L. E. (2015). Response Times to Gustatory-Olfactory Flavor Mixtures: Role of Congruence. *Chemical Senses*, 40(8), 565-575.

Brewer, J., Shepard, T.G., Shavit, A.Y., Veldhuizen, M.G., Parikh, R. & Marks, L.E. (2013). *Identification of gustatory-olfactory flavors mixtures: Effects of linguistic labeling*. *Chemical Senses*, 38, 305-313.

Marks, L., Shepard, T., Burger, K. & Chakwin, E. (2012). *Flavor-intensity perception: Effects of stimulus context*. *Physiology & Behavior*, 105(2), 443-50.

Marks, L., Veldhuizen, M., Shepard, T., Shavit, A. (2012). *Detecting gustatory-olfactory flavor mixtures: models of probability summation*. *Chemical Senses*, 37(3), 263-77.

Veldhuizen, M., Shepard, T., Wang, M., & Marks, L. (2010). *Coactivation of gustatory and olfactory signals in flavor perception*. *Chemical Senses*, 35(2), 121-133.

Blaser, E. & Shepard, T. (2009). *Maximal motion aftereffects in spite of diverted awareness*. *Vision Research*, 49, 1174-1181.

## MANUSCRIPTS IN PREPARATION

Shepard, T.G., Lahlaf, S., McCarthy, C., Eskew, R. Labeling the Lines: Asymmetric Color Matching Compared to a Six Mechanism Chromatic Detection Model. To be submitted to *Journal of Vision*

Shepard, T.G. & Eskew, R.T., Jr. A Six Mechanism Chromatic Detection model and Discrimination analyzed by a Bayesian Classifier. To be submitted to *Journal of Vision*

Shepard, T., Taylor, C., Rucker, F., Eskew, R.T. Jr. Sensitivity to Incremental S-cone Stimuli and the Development of Myopia. To be submitted to *Vision Research*

Shepard, T.G., Gabree, S.H., Eskew, R.T., Jr. Noise masking of S+ and S- Tests: Effects of Sawtooth Polarity. To be submitted to *Vision Research*

Gabree, S.H., Shepard, T.G., Eskew, R.T., Jr. Pedestal masking of S cone tests: Effects of gain control and cone combination. To be submitted to *Vision Research*

Livitz, G., Riesen, G., Shepard, T., Eskew, R.T. Jr. Afterimages and Spatially Induced Colors Have the Same Hue: A Model for Discounting Illuminants. To be submitted to *Journal of Vision*

## INVITED AND PEER-REVIEWED TALKS

Eskew, R.T., Jr., & Shepard, T.G. (2016) The hue of threshold-level tests compared to a six-mechanism model of chromatic detection. European Conference on Visual Perception, Barcelona, Spain

Shepard, T., (2016) A Model of Chromatic Detection and Discrimination—UMASS Boston- Psychology Department

Shepard, T., (2016) Labelling the lines: Chromatic Detection and Asymmetric Color Matching. T35 Summer Research Program—New England College of Optometry

Shepard, T., Lahlaf, S., McCarthy, C., Eskew, R.T. Jr. (2016) Labeling the Lines: Asymmetric Color Matches Compared to a Six Mechanism Chromatic Detection Model. *Journal of Vision*, 2016

Eskew, R.T., Jr., & Shepard, T.G. (2014) Noise masking of S+ and S- Tests: Linear Cone Combination Model Suggests Detection by Hue Mechanisms. *Journal of Vision* 14(10): 990-990

Eskew, R.T., Jr., & Shepard, T.G. (2013) Highly-selective chromatic masking does not require large numbers of color mechanisms. *Journal of Vision*, 2013,13, 296; doi:10.1167/13.9.296

Shepard, T.G. (2011) You Ate It, Now What Is It? Taste and Olfaction in Flavor Identification. Yale School of Medicine and J.B. Pierce Seminar Series

Blaser, E. & Shepard, T.G. (2007). Illuminating the shadow economy of Dark Attention. European Conference of Visual Perception, Arezzo, Italy.

## CONFERENCE PRESENTATIONS

Shepard, T., Taylor, C., Rucker, F., Eskew, R.T. Jr. (2016) Sensitivity to Incremental S-cone Stimuli and the Development of Myopia

Livitz, G., Riesen, G., Shepard, T., Eskew, R.T. Jr. (2016) Afterimages and Induced Colors Have the Same Hue: Implications for Discounting Illuminants

Shepard, T.G., McCarthy, C.L., Ochandarena, N.M., & Eskew, R.T. Jr. (2015) Selective noise masking of L and M cone stimuli: unipolar tests reveal theoretically significant asymmetries *Journal of Vision*, 2015

Eskew, R.T., Jr., & Shepard, T.G., Gabree, S.H. (2015) Pedestal masking of S cone tests: Effects of gain control and cone combination (*Perception*, August 2015; vol. 44, 1 suppl: pp. 1-415.

Shepard, T.G., Swanson, C.L., Eskew, R.T. Jr. (2013) Color mechanisms revealed by measuring detection and discrimination. *Journal of Vision*, 13, 1013; doi:10.1167/13.9.1013

Shavit, A., Veldhuizen, M., Shepard, T., Marks, L. *Does color modify the identification of associated flavors?* Association for Chemoreception Sciences (AChemS), April 2012.

Marks, L., Brewer, J., Shavit, A., Shepard, T., Veldhuizen, M. *Identification of gustatory-olfactory flavor mixtures: Effect of linguistic labeling.* International Symposium on Olfaction and Taste (ISOT), June 2012.

Marks, L., Veldhuizen, M., Shepard, T., Shavit, A. *Can Probability Summation Account for Gustatory-Olfactory Flavor-Mixture Detection?* Association for Chemoreception Sciences (AChemS), April 2011.

Shavit, A., Shepard, T., Veldhuizen, M., Marks, L. *Color facilitation in speeded gustatory detection.* Association for Chemoreception Sciences (AChemS), April 2011.

Shepard, T., Shavit, A., Veldhuizen, M., Marks, L. *Identification of Gustatory-Olfactory Flavors: Effects of Stimulus Context.* Association for Chemoreception Sciences (AChemS), April 2011.

Shepard, T., Shavit, A., Marks, L. *You Ate It, Now What Is It? Taste and Olfaction in Flavor Identification.* J.B. Pierce Foundation Seminar Series, April 2011.

Shavit, A., Shepard, T., Veldhuizen, M., Burger, K., Marks, L. *Gustatory-Olfactory Interactions in Flavor Perception?* Association for Chemoreception Sciences (AChemS), April 2010.

Shepard, T., Veldhuizen, M., Shavit, A., Marks, L. *Flavor Integration of MSG and Citral: Response Time Measurement.* Association for Chemoreception Sciences (AChemS), April 2010.

Shepard, T., Shavit, A., Veldhuizen, M., Marks, L. *How does Stimulus Context Affect Taste Intensity?* Association for Chemoreception Sciences (AChemS), April 2010.

Shepard, T., Wang, M., Veldhuizen, M., Marks, L. *Recognizing Taste Stimuli below the Detection Threshold.* Association for Chemoreception Sciences (AChemS), April 2009.

Shepard, T., Veldhuizen, M., Wang, M., Marks, L. *Response-Time Measures of Gustatory-Olfactory Integration.* Association for Chemoreception Sciences (AChemS), April 2008.

Marks, L., Shepard, T., Burger, K., Wang, M. *Effects of Context on Perceived Intensity of Flavor Mixtures Near Threshold.* Association for Chemoreception Sciences (AChemS), April 2008.

Shepard, T. & Blaser, E. *Illuminating the Shadow Economy of Dark Attention.* National Conference on Undergraduate Research (NCUR), March 2007.

## PREVIOUS RESEARCH EXPERIENCE

Research Assistant /Mentor at the Sensory Information Processing

October 2007 – July 2012

- Research Assistant (Dr. Lawrence Marks) at J.B. Pierce Laboratories at Yale University
  - Used psychophysical measurements to investigate the differences between the visual, auditory, gustatory, and olfactory systems. Topics included: Detection and Recognition of Gustatory and Olfactory stimuli, Interactions between the Visual-Auditory systems, Gustatory-Olfactory Interactions (response time and scaling measurements), Contextual effects in Gustation and Audition, Hedonic contextual effects in Flavor, Synaesthesia
  - Designed experiments, recruited subjects, data analysis, programmed experiments (Matlab, E-prime, Labview, Psyscope, C++, Vision Shell, MagScale), preparing gustatory and olfactory stimuli, present at academic conferences, manuscript/grant preparation
- Mentor
  - Mentored high school and undergraduate interns. Topics of interest: Redundancy gain in Vision/Audition, Synesthesia, Emotion detection in face and biological motion
  - Assisted with experimental design, analysis, and data presentation skills. Taught them the fundamentals of psychophysics

Research Assistant in the Human Vision Laboratory

May 2005 – May 2007

- Research Assistant (Dr. Erik Blaser) at UMASS-Boston
  - Studied visual attention and the selection and tracking of visual objects
  - Completed a yearlong Honor's project: 'Illuminating the Shadow Economy of Dark attention'
  - Presented Honor's thesis at the National Conference for Undergraduate Research in San Rafael, CA

Research Assistant in the Visual Attention (Eye-tracking) Laboratory

June 2007 – Sept. 2007

- Research Assistant (Dr. Marc Pomplun) at UMASS-Boston
  - Eye-tracking to investigate topics such as: The relationship between Intelligence and Inspection Time, Feature and Conjunction search tasks
  - Duties included: conducting experiments, recruiting subjects and data analysis
  - Gained experience with eye-tracking equipment (Eye-Link II)

Research Assistant in the Roemer Research Collective

May 2006 – May 2007

- Research Assistant (Dr. Lizabeth Roemer) at UMASS-Boston
  - Dr. Roemer examines the way that people respond to unwanted thoughts and feelings that accompany anxiety disorders; assesses the efficacy of acceptance-based therapies to determine whether mechanisms change with mindfulness-based treatments
  - Duties included: conducting experiments, recruiting subjects, literature reviews, analyzing data, proofreading and formatting documents for publication