

Kao-Wei Chua

Department of Psychology
216 Wilson Hall
Vanderbilt University
Nashville TN, 37203
E-mail Address: kao-wei.chua@vanderbilt.edu

EDUCATION

August 2011 – present: **Vanderbilt University**

- Ph.D student in Psychology: Cognitive and Cognitive Neuroscience
- Advisor: Isabel Gauthier

August 2004 – May 2008: University of Georgia

- Bachelor of Science in Psychology, May 2008
- Overall GPA: 3.83/4.00, Major GPA: 3.87/4.00
- Graduated Magna Cum Laude with Honors

August 2007 – December 2007: Study Abroad at Oxford

- Tutorials in Abnormal and Developmental Psychology with Dr. Mark Buckley

HONORS, AWARDS

- University of Georgia Charter Scholarship (2004-2008)
- University of Georgia Honors Program (2004 – 2008)
- Presidential Scholar 2004, 2006, 2007, 2008
- University of Vanderbilt Graduate Award (\$6000/year from 2011-2016)
- University of Vanderbilt Summer Research Award (\$1800 to conduct research at the University of Victoria), 2012
- 2011 National Science Foundation – Honorable Mention
- 2012 National Science Foundation Fellow – August 2012 – August 2015

ACADEMIC INTERESTS

Perceptual expertise, the hallmarks of expertise and the advantages of expertise

Holistic processing, the acquisition of holistic processing through experience

Comparisons of expert level processing with novices

Visual expertise as learned attentional strategies

RESEARCH EXPERIENCE

July 2009 – August 2011: Infant and Toddler Development Center at the University of Pittsburgh

- PI: Mark Strauss
- Research Assistant and Data Manager
- Behavioral and Eyetracking work in populations with autism spectrum disorder (ASD), face processing, categorization and prototype formation.
- Language development in infants at risk for ASD.

May 2008 – May 2009: Cardiovascular Laboratory at the James H Quillen VA Medical Center

- Research Assistant
- Attenuation of negative side effects from heart disease treatments

January 2007 – May 2008: University of Georgia Psychophysics Lab

- PI: James Brown
- Undergraduate Research Assistant
- Psychophysical work on visual attention and the magnocellular and parvocellular pathways in vision
- Undergraduate Honors Thesis: “The Effects of Relative Magno and Parvocellular Pathway Activity on Two Flash Detection Thresholds.”

PUBLICATIONS

Chua, K-W., Gauthier, I (in preparation). The Vanderbilt Holistic Processing Test for Novel Objects.

Chua, K-W., Bub, D., Masson, M., Gauthier, I (submitted). Grasp Actions Depend on What You Know and How You Attend.

Chua, K-W., & Gauthier, I. (2016). Category-specific learned attentional bias to object parts. *Attention, Perception, & Psychophysics*, 78(1), 44-51.

Chua, K-W., Richler, J. J., & Gauthier, I. (2015). Holistic processing from learned attention to parts. *Journal of Experimental Psychology: General*, 144(4), 723-729.

Chua, K-W., Richler, J. J., & Gauthier, I. (2014). Becoming a Lunari or Taiyo Expert: Learned Attention to Parts Drives Holistic Processing of Faces. *Journal of Experimental Psychology: Human Perception and Performance*, 1174-1182 .

Chua, K-W., Bub, D. N., Masson, M. E., & Gauthier, I. (2013). Long-term memory representations for volumetric grasps. *Visual Cognition*, 21(6), 682-685.

Chua, K-W., & Gauthier, I. (2013). Lunari Face Expertise: Holistic processing depends on experience with diagnostic parts. *Journal of Vision*, 13(9), 93-93.

Chen Z, Chua CC, Gao J, **Chua K-W.,** Ho Y-S, Hamdy RC, Chua BHL (2009). Prevention of Ischemia/Reperfusion-induced Cardiac Apoptosis and Injury by Melatonin is Independent of Glutathione Peroxidase 1. *J. Pineal Res.* 46 (2): 235-41.

Xu X, Chua CC, Gao J, **Chua K-W.,** Wang H, Hamdy RC, Chua BHL (2008). Neuroprotective Effect of Humanin on Cerebral Ischemia/Reperfusion Injury is Mediated by a PI3K/Akt Pathway. *Brain Res.* 1227: 12-8.

Chua CC, **Chua K-W.,** Gao J, Hamdy RC, Chua BHL (2008). Necroptosis is Involved in Cardiac Cell Death Induced by Chemical Ischemia. *FASEB J.* 22: 1238.

Chua, K-W., Green, S., Strauss, M.S (submitted). A novel eyetracking measure of receptive language in infants at risk for autism.

Gastgeb, H., **Chua, K-W.**, Dundas, E., Strauss, M.S.S. (submitted). Dot prototype formation in infants: A comparison of infants at high- and low-risk for autism spectrum disorder.

PRESENTATIONS

Chua, K-W., Gauthier, I. (2015). Probability Cuing Alone is Insufficient for Holistic Processing. Poster presented at the Object Perception and Memory Conference, Chicago, IL. November.

Chua, K-W., Gauthier, I. (2015). Learned Attention in an Object-Based Frame of Reference. Poster presented at the Vision Sciences Society, St. Pete Beach, FL. May.

Chua, K-W., Richler, J.J., Gauthier, I. (2014) Does acquisition of holistic processing for novel objects depend on experience with diagnostic parts? Poster presented at the Vision Sciences Society, St. Pete Beach, FL. May.

Chua, K-W., Bub, D. N., Masson, M. E., & Gauthier, I. (2013). Long-term memory representations for volumetric grasps. Talk presented at Object Perception and Memory Meeting, Toronto. November.

Chua, K-W., & Gauthier, I. (2013). Holistic face processing depends on attention to diagnostic face parts. Poster presented at Vision Sciences Society, Naples, FL. May.

Chua, K-W., Bub, D., Masson, M., & Gauthier, I. (2013). Grasping Novel Objects. Talk presented at the Perceptual Expertise Network Workshop, Pittsburgh, PA. April.

Chua, K-W., & Gauthier, I. (2013). Holistic face processing depends on experience with diagnostic face parts. Talk presented at Society for Research in Child Development, Seattle, WA. April.

Chua, K-W., & Gauthier, I. (2012). Holistic Processing in a Novel Race of Faces. Talk presented at the Perceptual Expertise Network Workshop. Austin, TX. December.

Chua, K-W., Green, S., Wexler, D., Strauss, M.S. (2011). An Eye-Scanning Approach to Studying Receptive Language in Typically Developing Infants. Poster presented at the Society for Research in Child Development (SRCD) in 2011.

Green, S., **Chua, K-W.**, Wexler, D., Strauss, M.S. (2011). An Eye-Scanning Approach to Measuring Receptive Language Abilities in Infants at High and Low Risk for Autism. Presented at the International Meeting for Autism Research (IMFAR) in 2011.

Strauss, M.S., Gastgeb, H., **Chua, K-W.**, Green, S., Hannigen, S., & Wilkinson, D. (2010). The Abstraction of Prototypes by Infants at Low and High Risk for Autism. Presented at the International Meeting for Autism Research (IMFAR 2010)

Chua, K-W. (2007). Effects of Objects and Spatial Frequency on Location-Based Inhibition of Return. Psi Chi's 30th Annual Convention of the Behavioral Sciences at the University of Georgia.

TEACHING EXPERIENCE

Teaching Assistant, *Introduction to Psychology*, Vanderbilt University, 2016, Instructor: Elisabeth Sandberg.

Instructor, *The Psychology of Film*, Vanderbilt Summer Academy, 2015.

Grader, *Mind and Brain*, Vanderbilt University, 2014. Instructor: Frank Tong.

Grader, *Introduction to Psychology*, Vanderbilt University, 2013. Instructor: Isabel Gauthier.

Guest Lecturer, *Introduction to Statistics*, Vanderbilt University, 2013, Instructor: Bieke Puncochar.

Teaching Assistant, *Introduction to Statistics*, Vanderbilt University, 2013, Instructor: Bieke Puncochar.

Teaching Assistant, *Human Sexuality*, Vanderbilt University, 2012, Instructor: Leslie Smith.

PROFICIENCIES

Programming:

MATLAB, R, LiveCode, Tobii

Data Analysis:

MATLAB, R, SPSS, DataDesk