

Timothy John Vickery

Curriculum Vitae

Contact information:

University of Delaware
Department of Psychology
108 Wolf Hall
Newark, DE 19176

lab phone: 302 831 1511
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Positions

- 2012-Present Assistant Professor, University of Delaware, Psychology
2012-Present Visiting Assistant Professor, University of Maryland, Psychology
(courtesy appointment to conduct fMRI research at UMD facility)
- 2008-2012 Postdoctoral associate, Yale University, Psychology
Advisor: Marvin Chun
- 2003-2008 Graduate Student (NSF Fellowship), Harvard University, Psychology
Advisor: Yuhong Jiang
- 2002-2003 Research computer programmer, Vanderbilt University
(labs of Thomas Palmeri, Isabel Guathier, and Randolph Blake)

Education

- 2005-2008 Harvard University Ph.D. in psychology
2003-2005 Harvard University M.A. in psychology
1998-2002 Vanderbilt University B.S. in computer science and psychology
Graduated *summa cum laude*

Funding

Current Support

- Title:* Reinforcement learning in the human brain: Dimensions, features,
and contexts
- Funding Source:* National Science Foundation
- PI:* Timothy J. Vickery
- Grant Period:* 3/15/2016 - 2/28/2019
- Total Funding:* \$449,999

Title: The neural basis of reward learning
Funding Source: University of Delaware Research Foundation
PI: Timothy J. Vickery
Grant Period: 6/1/2014 – 5/31/2016
Total Funding: \$35,000

Honors and Awards

- 2009 Attention, Perception, & Psychophysics' "Best Article of 2009" award for the article "Associative grouping: Perceptual grouping of shapes by association"
- 2008 European Conference for Visual Perception Student Travel Award
- 2007 Summer Institute of Cognitive Neuroscience Fellowship, UCSB
- 2007 Vision Sciences Society Student Travel Award
- 2005 Cognitive Science Society Student Travel Award
- 2003 National Science Foundation Graduate Research Fellowship (taken 2005-2008)
- 2002 Program in Computer Science Award, Vanderbilt School of Engineering (awarded to one graduating senior in the major)
- 1998 National Merit Scholarship

Publications

Vickery, T.J., Kleinman, M.R., Chun, M.M., & Lee, D. (2015). Opponent identity influences value learning in simple games. *Journal of Neuroscience*, 35(31): 11133-43.

Cartmell, S.C., Chun, M.M., & Vickery, T.J. (2013). Neural antecedents of social decision making in a partner choice task. *Social, Cognitive, and Affective Neuroscience*. 9(11): 1722-9.

Bukach, C.M., Vickery, T.J., Kinda, D., & Gauthier, I. (2012). Training experts: Individuation without naming is worth it. *Journal of Experimental Psychology: Human Perception and Performance*, 38(1): 14-17.

Vickery, T.J., Chun, M.M., & Lee, D. (2011). Ubiquity and specificity of reinforcement signals throughout the human brain. *Neuron*, 72(1): 166-177.

Vickery, T.J., & Chun, M.M. (2010). Object-based warping: An illusory distortion of space within objects. *Psychological Science*. 21(12):1759-64.

Vickery, T.J., Sussman, R.S., & Jiang, Y.V. (2010). Spatial context learning survives interference from working memory load. *Journal of Experimental Psychology: Human Perception and Performance*, 36(6): 1358-71.

Shim, W.M., Alvarez, G.A., Vickery, T.J., & Jiang, Y.V. (2010). The number of attentional foci and their position are dissociated in the posterior parietal cortex. *Cerebral Cortex*.20(6): 1341-1349.

Vickery, T.J., Shim, W.M., Chakravarthi, R., Jiang, Y.V., & Luedeman, R. (2009). Supercrowding: Weakly masking a target expands the range of crowding. *Journal of Vision*, 9(2):12, 1-15.

Vickery, T.J., & Jiang, Y.V. (2009). Associative grouping: Perceptual grouping of shapes by association. *Attention, Perception, & Psychophysics*, 71(4): 869-909. [Selected as AP&P's "Best Article of 2009 Award", Psychonomic Society]

Vickery, T.J., & Jiang, Y.V. (2009). Inferior parietal lobule supports decision-making under uncertainty in humans. *Cerebral Cortex*, 19(4): 916-925.

Vickery T.J. (2008). Induced perceptual grouping. *Psychological Science*. 19(7): 693-701.

Vickery T.J., King L.-W., & Jiang Y. (2005). Setting up the target template in visual search. *Journal Of Vision*, 5(1), 81-92.

Jiang, Y., Kumar A., & Vickery T.J. (2005). Integrating visual arrays in visual-short term memory. *Experimental Psychology*, 52, 39-46.

Refereed conference papers

Vickery, T.J., & Chun, M.M. (2009). The perception of space is warped by objects. *Proceedings of the Object Perception, Attention, and Memory Conference*, published in *Visual Cognition*.

Vickery, T.J., Hartshorne, J.H., Jiang, Y.V. (2007). Learning to form new perceptual groups. *Proceedings of the Object Perception, Attention, and Memory Conference*, published in *Visual Cognition*.

Vickery, T.J. (2005), Opponent models and heuristic strategies for simple games. *Proceedings of the Twenty-Seventh Annual Conference of the Cognitive Science Society*.

Invited talks

2016, Spring	Cognitive Brown Bag, Dept. of Psychology <i>Temple University</i>
2015, Fall	Vision Seminar <i>Johns Hopkins University</i>
2015, Spring	Psychology Department Colloquium <i>Lehigh University</i>
2015, Spring	Cognition and Perception Seminar <i>New York University</i>
2012, February	Psychology Department Colloquium

	<i>Stanford University</i>
2012, January	Current Works in Cognitive Science Seminar, Yale Psych. <i>Yale University, New Haven, CT</i>
2012, January	Psychology Department Colloquium <i>Georgetown University</i>
2011, December	Psychology Department Colloquium <i>University of South Carolina</i>
2011, December	Psychology Department Colloquium <i>University of Delaware</i>
2011, July	Interdisciplinary Meeting on Learning in Game Theoretic Settings <i>Rutgers University, NJ</i>
2011, April	Cognitive Brown Bag Seminar, Dartmouth Psych. <i>Dartmouth University, NH</i>
2011, April	BCS Vision Seminar, MIT BCS <i>MIT, Cambridge, MA</i>
2009, February	Current Works in Cognitive Science Seminar, Yale Psych. <i>Yale University, New Haven, CT</i>
2008, August	School of Psychology & Education <i>University of Liège, Liège, Belgium</i>
2007, December	Cognition, Brain, & Behavior Research Seminar, Harvard Psych. <i>Harvard University, Cambridge, MA</i>
2006, April	Cognition, Brain, & Behavior Research Seminar, Harvard Psych. <i>Harvard University, Cambridge, MA</i>

Symposia

Vickery, T.J. (2010). Weak target masks and distant flankers interact to produce a catastrophic supercrowding effect. *Invited talk for symposium on crowding for the Association for the Scientific Study of Consciousness, Toronto.*

Vickery, T.J., Shim, W.M., Chakravarthi, R., Jiang, Y.V., and Luedeman, R.L. (2008). Breaking the bound: Weakly masking a target greatly enhances crowding. *Invited talk for symposium on crowding at European Conference for Visual Perception, Utrecht.*

Conference abstracts

Friedman, K., Vickery, T.J. (2015). Does reward influence visual statistical learning? *Vision Sciences Society 2015.*

Vickery, T.J., Friedman, K. (2015). Generalization of value to visual statistical associates during reinforcement learning. *Vision Sciences Society, 2015.*

Vickery, T.J., Friedman, K., Bristol, R. (2015). Task irrelevant feature-value associations elicit neural reward prediction error signals. *Cognitive Neuroscience Society 2015.*

Angelides, N., Gupta, J, Vickery, T.J. (2015). Individual reward responsiveness predicted by resting-state connectivity of basal ganglia and orbitofrontal cortex. *Cognitive Neuroscience Society 2015*.

Bristol, R., Angelides, N., Vickery, T.J. (2014). Interactions between visual working memory and verbal feature descriptions. *Object Perception, Attention, and Memory 2014/*

Moyer, J., Vickery, T.J. (2014). Interference from an integral feature in visual statistical summary representations. *Vision Sciences Society 2014*.

Vickery, T.J., Friedman, K., Bristol, R. (2014). Unreliable associations between visual features and values interfere with reward-based decision-making. *Vision Sciences Society 2014*.

Vickery, T.J. (2013). Irrelevant feature-value associations intrude on reward-based decision-making. *Psychonomic Society 2013*.

Vickery, T.J., Kuhl, B., Chun, M.M. (2012). Visual cortex supports temporally specific working memory representations. *Society for Neuroscience 2012*.

Vickery, T.J., Kuhl, B., Chun, M.M. (2012). Temporally specific visual working memory representations revealed by multivoxel pattern analysis. *Vision Sciences Society 2012*.

Vickery, T.J., Kleinman, M.R., Zhang, Z., Lee, D., and Chun, M.M. (2011). Cortical, but not subcortical, representations of outcomes are context-specific in competitive games. *Society for Neuroscience 2011*.

Vickery, T.J., Kleinman, M.R., Zhang, Z., Lee, D., and Chun, M.M. (2011). Cortical, but not subcortical, representations of outcomes are context-specific in competitive games. *Psychonomic Society 2011*.

Vickery, T.J., and Chun, M.M. (2011). Object-based warping: Distribution of distortions over an object's surface and independence of shape. *Vision Sciences Society 2011*.

Vickery, T.J., Kleinman, M.R., Lee, D., and Chun, M.M. (2010). Neural pattern classification reveals trial-specific outcomes in a simple game. *Psychonomic Society, 2010*.

Albrecht, A.R., Nguyen-Phun, A., Vickery, T., and Chun, M.M. (2010). Neural correlates of average size processing. *Society for Neuroscience 2010*.

Vickery, T.J., Kleinman, M.R., Lee, D., and Chun, M.M. (2010). Neural pattern classification reveals trial-specific outcomes in a simple game. *Society for Neuroscience, 2010*.

- Vickery, T.J., and Chun, M.M. (2010). Warped spatial perception within and near objects. *Vision Sciences Society, 2010*.
- Vickery, T.J., and Chun, M.M. (2009). Basic visual representations are altered by rewards. *Vision Sciences Society 2009*.
- Vickery, T.J., Shim, W.M., Chakravarthi, R., Jiang, Y.V., and Luedeman, R.L. (2008). Supercrowding: Weakly masking a target greatly enhances crowding. *Vision Sciences Society 2008*.
- Jiang, Y.V., Vickery, T.J. (2007). Neural differentiation of the sources of uncertainty in decision-making tasks. *Society for Neuroscience 2007*.
- Vickery, T.J., Shim, W.M., Chakravarthi, R., Jiang, Y.V., and Luedeman, R.L. (2007). Enclosure of a target enhances crowding. *Society for Neuroscience 2007*.
- Vickery, T.J., Jiang, Y.V. (2007). Second-order perceptual grouping. *Vision Sciences Society 2007*.
- Hartshorne, J.H., Vickery, T.J., Jiang, Y.V. (2007). Dissociation between categorization and search. *Vision Sciences Society 2007*.
- Vickery, T.J., Jiang, Y.V. (2006). Neural dissociation of attention and decision-making under uncertainty. *Psychonomics Society 2006*.
- Vickery, T.J., Jiang, Y.V. (2006). Inferior parietal lobule supports decision-making under uncertainty. *Society for Neuroscience 2006*.
- Matthews, C., Eng, H., Vickery, T.J., Shim, W.M., Jiang, Y.V. (2006). Learning of arbitrary visual associations by trial-and-error," *Vision Sciences 2006*.
- Vickery, T. J., Sussman, R.S., Jiang, Y.V. (2006). Selective attention and general attentional resources in the learning of spatial context. *Vision Sciences 2006*.
- Shim, W.M., Alvarez, G.A., Vickery, T.J., Jiang, Y.V. (2006) Effects of spatial and nonspatial attentional load on posterior parietal cortex. *Vision Sciences 2006*.
- Vickery, T.J., Jiang, Y. (2005). Attention and competitive decision making, *Vision Sciences 2005*.
- Vickery, T.J., Jiang, Y. (2004). Setting up the target template in visual search. *Psychonomics Society 2004*.
- Vickery, T.J., Jiang, Y. (2004) Perceptual set switching: How are target templates changed in visual tasks? *Vision Sciences 2004*.

Kumar, A., Vickery, T.J., Jiang, Y. (2004). Integrating sequential arrays in visual short-term memory. *Vision Sciences 2004*.

Vickery, T.J., Gauthier, I. (2003). Keeping a straight face: configural processing and the aperture capture illusion. *Vision Sciences 2003*.

Advising

Doctoral Advisor, Department of Psychology, University of Delaware:

Su Hyoun Park (Fall 2015-present)

Leeland Rogers (Fall 2015-present)

Gregory Wade (Fall 2015-present)

Jesse Moyer (Fall 2013-Summer 2014)

Undergraduate Research Supervisor. Department of Psychology, University of Delaware:

Jason Rubinstein (Fall 2012-Spring 2014); Jamie Williams (Fall 2012-Fall 2013);

Eric Kyle Friedman (Spring 2013-Spring 2015); Sarah Sweigart (Fall 2013-

Present); Eric Landsberg (Fall 2013); Jayesh Gupta (Spring 2014-Present); Jared

Beneroff (Fall 2014-Spring 2015); Corey Beinhart (Fall 2014-Present); Marisa

Chamness (Spring 2015); Jasmine Hill (Spring 2015-Present)

Teaching Experience

S2015, University of Delaware, Instructor, PSY310 Sensation & Perception

F2015, University of Delaware, Instructor, PSY/NSCI 467 Psych. of Decision-Making

F2015, University of Delaware, Instructor, PSY310 Sensation & Perception

F2014 University of Delaware, Instructor, PSY465 Psychology of Decision-Making

F2014 University of Delaware, Instructor, PSY310 Sensation & Perception

S2014 University of Delaware, Instructor, PSY310 Sensation & Perception

F2013 University of Delaware, Instructor, PSY667/NSCI667, Cognitive Neuroimaging

S2013 University of Delaware, Instructor, PSY310 Sensation & Perception

F2012 University of Delaware, Instructor, PSYC207 Research Methods

F2005 Harvard, Head Teaching Fellow, Vision and Brain

F2004 Harvard, Teaching Fellow, Statistical methods for psychology (Grad-level)

Departmental and University Service

2014-2015 Member, Director of Multimodal Imaging Center Search Committee

2013-present University of Delaware MRI Task Force

2012-present Coordinator, Cognitive Area Brown Bag Series, U. of Delaware

2012-2013 Member, Psychology Colloquium Committee, University of Delaware

Fall 2013 Member, Social Psychology Faculty Search Committee, University of Delaware

Professional and Editorial Service

2012-Present Consulting editor, Journal of Experimental Psychology: General
2013-Present Treasurer of Object Perception, Attention, and Memory Conference
2010-2012 Co-organizer of Object Perception, Attention, and Memory Conference

Ad hoc reviewing

Applied Cognitive Psychology
Attention, Perception, & Psychophysics
Cerebral Cortex
Cognition
Cognitive Psychology
Cognitive Science Society
Emotion
Experimental Brain Research
Experimental Psychology
Frontiers in Neuroscience
Journal of Cognitive Neuroscience
Journal of Experimental Child Psychology
Journal of Experimental Psychology: General
Journal of Experimental Psychology: Human Perception and Performance
Journal of Experimental Psychology: Learning, Memory, and Cognition
Journal of Neuroscience
Journal of Vision
Learning and Individual Differences
National Science Foundation (ad hoc panelist and reviewer)
Neuroimage
Neuron
PLOS ONE
Psychological Science
Psychonomic Bulletin & Review
Quarterly Journal of Experimental Psychology
Vision Research
WIREs Cognitive Science