

EMILY JUNIPER WARD

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ACADEMIC POSITIONS

- 2018–Present Assistant Professor, Department of Psychology
UNIVERSITY OF WISCONSIN - MADISON
- 2017–18 Visiting Assistant Professor, Department of Psychology
UNIVERSITY OF WISCONSIN - MADISON
- 2016–17 Visiting Researcher, Donders Institute
Radboud University, Nijmegen, Netherlands

EDUCATION

- 2010–16 Ph.D. Yale University, New Haven
Psychology (Cognitive Neuroscience)
Advisors: Marvin CHUN & Brian SCHOLL
- 2013 M.S., M.Phil. Yale University, New Haven
- 2007 B.A. Franklin & Marshall College, Lancaster

HONORS & AWARDS

- 2015 Brains, Minds, & Machines Workshop Fellowship (Marine Biology Laboratory)
- 2014 Elsevier/Vision Research Travel Award (VSS Student Travel Award)
- 2011 Rovereto CAOs Travel Grant
- 2010–13 National Science Foundation Graduate Research Fellowship
- 2007 Rawnsley Science Prize for top undergraduate in science, FRANKLIN & MARSHALL

RESEARCH INTERESTS

General Areas

- Visual cognition, attention, and awareness
- Neural representation of high-level vision

Specific Questions

- Are we aware of more than we can report?
- Where and when do failures of awareness arise?
- Do more distinct neural representations correspond to more distinct percepts?
- How are object representations transformed when objects undergo physical changes?

PUBLICATIONS

Ward, E. J., Isik, L., & Chun, M. M. (2018). General transformations of object representations in human visual cortex. *Journal of Neuroscience*, 38, 85268537. [PDF](#)

Ward, E. J. (2018). Downgraded Phenomenology: How conscious overflow lost its richness. *Phil. Trans. R. Soc. B*, 373:20170355. [PDF](#)

Ward, E. J., Bear, A., & Scholl, B. J. (2016). Can you perceive ensembles without perceiving individuals?: The role of statistical perception in determining whether awareness overflows access. *Cognition*, 152, 78-86. [PDF](#)

Chekroud, A. M.*, Ward, E. J.*, Rosenberg, M. D., & Holmes, A. J. (2016). Patterns in the human brain mosaic discriminate males from females. *Proceedings of the National Academy of Sciences*, pii: 201523888. [PDF](#)

Ward, E. J. & Chun, M. M. (2016). Neural discriminability of object features predicts perceptual organization. *Psychological Science*, 27, 3-11. [PDF](#)

Ward, E. J. & Scholl, B. J. (2015). Stochastic or systematic?: Seemingly random perceptual switching in bistable events triggered by transient unconscious cues. *Journal of Experimental Psychology: Human Perception & Performance*, 41, 929-939. [PDF](#)

Ward, E. J. & Scholl, B. J. (2015). Inattention blindness reflects limitations on perception, not memory: Evidence from repeated failures of awareness. *Psychonomic Bulletin & Review*, 22, 722-727. [PDF](#) . [Featured in *News from the field* by Burnham (2015)]

Ward, E. J., Chun, M. M., & Kuhl, B. A. (2013). Repetition suppression and multi-voxel pattern similarity differentially track implicit and explicit visual memory. *Journal of Neuroscience*, 33, 14749-14757. [PDF](#) . [F1000 Recommended Article ([Review](#)|[Text](#))]

Lupyan, G. & Ward, E. J. (2013). Language can boost otherwise unseen objects into visual awareness. *Proceedings of the National Academy of Sciences*, 110, 14196-14201. [PDF](#)|[SI](#) . [Featured in *The Guardian* and *National Geographic*]

Ward, E. J., MacEvoy, S. P. & Epstein, R. A. (2010). Eye-centered encoding of visual space in scene-selective regions. *Journal of Vision*, 10, 1-12. [PDF](#)

Epstein, R. A. & Ward, E. J. (2010). How reliable are visual context effects in the parahippocampal place area? *Cerebral Cortex*, 20, 294-303. [PDF](#)

MANUSCRIPTS

Lim, C., Vickery, T., Ward, E. J., & Johnson, M. M. (*in revision*). Drift in fMRI pattern representations during the delay interval predicts performance in a visual working memory task.

CONFERENCE PRESENTATIONS

Ward, E. J. & de Lange, F. P. (2018, May). The neural dynamics of category-based attention. Talk presented at *Vision Science Society*, St. Pete's Beach, FL.

Ward, E. J. & de Lange, F. P. (2017, November). The neural dynamics of category-based attention. Talk presented at *Society for Neuroscience*, Washington, DC.

- Ward, E. J. & Chun, M. M. (2016, May). Neural evidence for visual routines: Transforming object representations across physical changes. Poster presented at *Vision Science Society*, St. Pete's Beach, FL.
- Ward, E. J. & Scholl, B. J. (2015, May). Inattention blindness reflects limitations on perception, not memory: Evidence from repeated failures of awareness. Talk presented at *Vision Science Society*, St. Pete's Beach, FL.
- Ward, E. J. & Chun, M. M. (2014, November). Neural discriminability of object features predicts perceptual organization. Talk presented at *Society for Neuroscience*, Washington, DC.
- Ward, E. J. & Chun, M. M. (2014, May). Neural coding of perceptual features is enhanced when they are task relevant. Talk presented at *Vision Science Society*, St. Pete's Beach, FL. [Abstract published in *Journal of Vision*, 14(10): 22-22.]
- O'Connell, T., Ward, E. J. & Chun, M. M. (2014, May). Temporal consistency of multi-voxel patterns for repeated scenes. Poster presented at *Vision Science Society*, St. Pete's Beach, FL. [Abstract published in *Journal of Vision*, 14(10): 1078-1078.]
- Ward, E. J. & Chun, M. M. (2013, November). Timescale limitations of perceptual expectation on fMRI repetition suppression. Poster presented at *Society for Neuroscience*, San Diego, CA.
- Ward, E. J. & Scholl, B. J. (2013, May). Making the switch: Transient unconscious cues can disambiguate bistable images. Talk presented at *Vision Science Society*, Naples, FL. [Abstract published in *Journal of Vision*, 13(9): 1107-1107.]
- Ward, E. J., Kuhl, B. A., & Chun, M. M. (2012, May). Multi-voxel pattern similarity predicts subsequent visual memory. Talk presented at *Vision Science Society*, Naples, FL. [Abstract published in *Journal of Vision*, 12(9): 123-1123.]
- Ward, E. J., Kuhl, B. A., & Chun, M. M. (2011, November). fMRI adaptation & multi-voxel pattern similarity reveal dissociable effects of face repetition. Talk presented at *Society for Neuroscience*, Washington, D.C.
- Ward, E. J., & Lupyan, G. (2011, May). Linguistic Penetration of Suppressed Visual Representations. Talk presented at the *Concepts, Actions, and Objects* annual meeting, Rovereto, Italy.
- Ward, E. J., & Lupyan, G. (2011, May). Linguistic Penetration of Suppressed Visual Representations. Poster presented at *Vision Sciences Society*, Naples, FL. [Abstract published in *Journal of Vision*, 11(11): 322-322.]
- Epstein, R., Smith, M., & Ward, E. (2009, May). What is the function of the parahippocampal place area? Testing the context hypothesis. Poster presented at *Vision Sciences Society*, Naples, FL. [Abstract published in *Journal of Vision*, 9(8): 963-963.]
- Epstein, R. A. & Ward, E. J. (2008, November). How reliable are "context" effects in the parahippocampal place area? Poster presented at *Society for Neuroscience*, Washington DC.
- Ward, E. J., Parker, W. E., Feiler, A. M., & Epstein, R. A. (2008, Mayb). Adaptation for individual places but not for place categories in scene-selective cortical regions. Poster presented at *Vision Sciences Society*, Naples, FL. [Abstract published in *Journal of Vision*, 8(6): 333-333.]
- Ward, E. J., Hattori, Y., Fujita, K., & Thompson, R. K. R. (2007, March). Effects of Two Dimensional Noise and Feature Configuration on the Recognition of Faces in Capuchins (*Cebus apella*). Poster presented at *Conference on Comparative Cognition*, Melbourne, FL.
- Leis, J., Ward, E. J., & Thompson, R. K. R. (2006, March). Does What a Monkey Receive Affect His Partner's Expectation of Reward? Some Answers from Capuchin Monkeys (*Cebus apella*). Poster presented at *Conference on Comparative Cognition*, Melbourne, FL.
- Ward, E. J., Eaves, E. & Fried, J. (2005, April). Effects of an Antidepressant Drug on Estrogen-Treated Rats in the Forced Swim Test. Talk presented at *National Conferences for Undergraduate Research*, Lexington, VA.

INVITED COLLOQUIA

- 2019 Leigh Yawkey Woodson Art Museum Public Lecture, WAUSAU, WISCONSIN
 2019 Arrowhead High School Psychology Club, HARTLAND, WISCONSIN
 2018 McPherson Eye Research Institute Seminar, UNIVERSITY OF WISCONSIN - MADISON
 2017 Consciousness & Cognitive Access Workshop, AARHUS UNIVERSITY, DENMARK
 2016 Jean Nicod Colloquium, ECOLE NORMALE SUPÉRIEURE, PARIS
 2016 Department Talk, Psychology, UNIVERSITY OF WISCONSIN - MADISON
 2015 Current Works in Cognitive Psychology, YALE UNIVERSITY
 2014 Magnetic Resonance Research Center fMRI Seminar, YALE UNIVERSITY
 2013 Current Works in Behavior, Genetics, and Neuroscience, YALE UNIVERSITY
 2012 Cognitive & Perception Brownbag, UNIVERSITY OF WISCONSIN - MADISON

AD HOC REVIEWING: JOURNALS

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| <i>Acta Psychologica</i> | <i>Journal of Neuroscience</i> |
| <i>Attention, Perception, & Psychophysics</i> | <i>Mind & Language</i> |
| <i>Canadian Journal of Experimental Psychology</i> | <i>Neurobiology of Learning and Memory</i> |
| <i>Cognition</i> | <i>Philosophical Psychology</i> |
| <i>Consciousness and Cognition</i> | <i>Philosophical Transactions B</i> |
| <i>Cortex</i> | <i>PLOS ONE</i> |
| <i>Experimental Brain Research</i> | <i>Psychonomic Bulletin Review</i> |
| <i>Frontiers in Psychology</i> | <i>Review of Philosophy and Psychology</i> |
| <i>JEP: General</i> | <i>Visual Cognition</i> |
| <i>JEP: Human Perception and Performance</i> | |

AD HOC REVIEWING: CONFERENCES, FUNDING AGENCIES, PUBLISHERS, ETC

- Einstein Foundation*
National Science Foundation

PHD COMMITTEES

- 2018 Aaron Cochran, DEPARTMENT OF PSYCHOLOGY
 2017 Anke Marit Albers, DONDERS INSTITUTE

TEACHING EXPERIENCE

- 2018 Basic Statistics for Psychology, UNIVERSITY OF WISCONSIN - MADISON
 2014 The Human Brain, YALE UNIVERSITY, TEACHING FELLOW
 2012 Introduction to Cognitive Science, YALE UNIVERSITY, TEACHING FELLOW
 2012 Sex, Evolution, and Human Nature, YALE UNIVERSITY, TEACHING FELLOW
 2011 Methods in Human Neuroscience, YALE UNIVERSITY, TEACHING FELLOW
 2007 Neuroscience, FRANKLIN & MARSHALL COLLEGE, TEACHING ASSISTANT

2006 Knowing Animal Minds, FRANKLIN & MARSHALL COLLEGE, TEACHING ASSISTANT

RELATED EXPERIENCE

2007–10 Research Specialist, Epstein Lab, CENTER FOR COGNITIVE NEUROSCIENCE, UPENN

2006–07 Senior Independent Honors Research, FRANKLIN & MARSHALL COLLEGE

2006 Primate Cognition Lab Research Associate, PSYCHOLOGY, KYOTO UNIVERSITY

2005 Hackman Scholars Research, FRANKLIN & MARSHALL COLLEGE

UNIVERSITY & DEPARTMENTAL SERVICE

Committees

2018–present Eye Research Institute Outreach Committee, MCPHERSON EYE INSTITUTE

2018–present Web & Social Media Committee, DEPARTMENT OF PSYCHOLOGY

Speaking

Speaker 'Perceptual Illusions in Deep Neural Networks', HAMLET (2018)

Speaker 'Get to know your faculty', First Year Graduate Seminar (2018)

Speaker 'Neural dynamics of category-based attention', Biol. of Brain & Behav. Brownbag (2018)

Lecturer 'Attention', Perception (2018)

Speaker 'How to give (more) effective talks', Cognition & Cog. Neuroscience Brownbag (2018)