# Wayne E. Mackey, Ph.D.

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#### **Current position**

Postdoctoral fellow, Computational Neuroimaging Lab, New York University (2016). Advisor: David Heeger

#### **Education**

Ph.D., Experimental Psychology, New York University (2016). Advisor: Clayton Curtis. Thesis: *Is prefrontal cortex necessary for working memory?* 

M.A., Experimental Psychology, New York University (2014)

B.A., Psychology, Temple University (2012)

#### **Honors & Awards**

Katzell Fellowship in Psychology (2016)

National Science Foundation Graduate Research Fellowship (2013-2016)

Henry M. MacCracken Fellowship (2012)

Engberg Fellowship (2012)

## **Extramural Funding**

NYU Center for Brain Imaging Pilot Grant: "Experience-dependent learning in visual field maps". (2016-2017). \$5,000.

NYU Center for Brain Imaging Pilot Grant: "Brocalizer: Is there overlap between frontal visual field maps and Broca's area?". (2016-2017). \$5,000.

Katzell Fellowship in Psychology: "Dissociation of functional networks critical to working memory". (Summer 2016). \$1,500.

National Science Foundation GRFP (DGE 1342536): "Distortions in representations of prioritized space". (2013-2016). \$138,000.

## **Published Manuscripts**

**Mackey, W.E.**, Winawer, J., & Curtis, C.E. "Visual field maps in human frontoparietal cortex". *bioRxiv*. doi.org/10.1101/083493.

**Mackey, W.E.**, Devinsky, O., Doyle, W., Golfinos, J., & Curtis, C.E. (2016). "Human parietal cortex lesions impact the precision of spatial working memory". *Journal of Neurophysiology*. 116(3):1049-1054

**Mackey, W.E.**, Devinsky, O., Doyle, W., Meager, M., & Curtis, C.E. (2016). "Human dorsolateral prefrontal cortex is not necessary for spatial working memory". *Journal of Neuroscience*. 36:2847-2856.

#### **Manuscripts in Preparation**

**Mackey, W.E.**, Ding, X., Winawer, J., Wang, X-J., & Curtis, C.E. "Visual field maps predict individual differences in working memory". In prep.

Wallisch, P., **Mackey, W.E.**, Karlavich, M., & Heeger, D.J. "The visible gorilla: Stimulus speed mediates the tradeoff between endogenous and exogenous attention". In prep.

**Mackey, W.E.**, & Curtis, C.E. "Disruption of delay-period activity in human frontal eye fields causes systematic impairments in spatial cognition". In prep.

Kroes, M.C.W., Dunsmoor, J.E., **Mackey, W.E.**, & Phelps, E.A. "Context-dependent learning in virtual reality". In prep.

**Mackey, W.E.**, & Curtis, C.E. "Dissociation of frontal and parietal cortex contributions to working memory". *In prep*.

**Mackey, W.E.**, & Curtis, C.E. "The prefrontal cortex across species: brain stimulation bridges the gap". *In prep*.

**Mackey, W.E.**, & Curtis, C.E. "iEye: an open-source eye-tracking toolbox for MATLAB". *In prep*.

#### **Conference Presentations**

Kupers, E., **Mackey, W.E.,** Winawer, J., & Curtis, C.E. (2017). "The topographical relationship between visual field maps in association cortex and brain areas involved in non-visual cognition". *Vision Sciences Society*, St. Pete Beach, F.L., USA.

Ding, X., **Mackey, W.E.,** Wang, X-J., Winawer, J., & Curtis, C.E. (2017). "Visual field maps limit working memory precision". *Vision Sciences Society*, St. Pete Beach, F.L., USA.

Ding, X., **Mackey, W.E.,** Wang, X-J., Winawer, J., & Curtis, C.E. (2017). "Visual field maps limit working memory precision". *Computational and Systems Neuroscience*, Salt Lake City, U.T., USA.

Curtis, C.E., **Mackey, W.E.,** Ding, X., Wang, X-J., & Winawer, J. (2016). "Visual field maps constrain working memory precision". *Society for Neuroscience*, San Diego, C.A., USA.

**Mackey, W.E.**, & Curtis, C.E. (2016). "Disruption of delay-period activity in human frontal eye fields causes systematic impairments in spatial cognition". *Cognitive Neuroscience Society*, New York, N.Y., USA.

**Mackey, W.E.**, & Curtis, C.E. (2014). "Rethinking the contribution of the dorsolateral prefrontal cortex to spatial working memory". *Society for Neuroscience*, Washington, D.C., USA.

Curtis, C.E., **Mackey, W.E.**, & Winawer, J. (2014). "Visual field maps in human association cortices". *Society for Neuroscience*, Washington, D.C., USA.

## **Teaching Experience**

Teaching Assistant: Psychopathy: a Comprehensive Neurobiological Perspective, New York University (Spring, 2017)

Guest Lecturer: Cognitive Psychology, Temple University (Fall, 2016)

Guest Lecturer: Cognitive Neuroscience, New York University (Spring, 2016)

Teaching Assistant: Introduction to Psychology, New York University (Spring, 2016)

Teaching Assistant: Introduction to Psychology, New York University (Fall, 2015)

Teaching Assistant: Cognitive Neuroscience, New York University (Spring, 2015)

Teaching Assistant: Cognition, New York University (Fall, 2014)

Teaching Assistant: Cognitive Neuroscience, New York University (Fall, 2013)

Teaching Assistant: Cognitive Neuroscience, New York University (Spring, 2013)

# **Mentorship**

Eric Ottenberg, undergraduate student (2012-2013)

Brittany Siler, undergraduate student (Summer, 2013)

Sarah Marino, masters student (2013-2015), currently Ph.D. student at Arizona State University

Lauren Banker, undergraduate student (2013-2015), currently research scientist at the National Institutes of Health

Grace Hallenbeck, masters student (2015-2016), currently Ph.D. student at New York University

Edelene Guo, masters student (2016-current)

# Memberships

Society for Neuroscience

Cognitive Neuroscience Society

New York Academy of Sciences