

# Soojin Park

## Curriculum Vitae

Cognitive Science Department

Johns Hopkins University Room 237 Email: park@cogsci.jhu.edu

3400 North Charles Street

Phone: (410) 516-5250

Baltimore, MD 21218

Web: <http://parklab.johnshopkins.edu>

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### Academic Appointments

Assistant Professor

2011- current

Department of Cognitive Science, Johns Hopkins University

### Education and Training

Massachusetts Institute of Technology

2008-2011

Postdoctoral Associate

Advisor: Aude Oliva

Yale University

2003-2008

Ph.D., 2008: Psychology

M.Phil., 2006: Psychology

M.S., 2005: Psychology

Yonsei University, Seoul, Korea

1999-2003

B.A., 2004: Psychology & English Literature

University of Oregon (junior year abroad)

2001-2002

Research Assistant (Spring 2002)

Advisor: Dr. Edward Awh

### Grants and Awards

#### *Current Research Support*

NIH R01- EY026042 (4/1/16 - 3/31/21)

Title: Neural representation of the geometry and functionality in a scene

Role: PI

Total amount: \$1,638,785

Johns Hopkins Catalyst Award (9/1/15-8/31/16)

Title: Neural sensitivity to Boundary and Geometric shape of space

Role: PI

Total amount: \$75,000

## *Awards and Fellowships*

Yale University Dissertation Fellowship	2007-2008
University of Oregon Dean's Award (undergraduate)	2001-2002
Yonsei University Academic Fellowship (undergraduate)	2000-2001

## **Publications**

### *Manuscripts under review*

Park, J. & **Park, S.** (under review). The parahippocampal place area (PPA) conjointly represents texture ensemble and location in a scene.

**Park, S.** (in revision). Neural representation of the navigability in a scene.

### *Published*

Hatfield, M., McCloskey, M., & **Park, S.** (2016). Neural representation of object orientation: A dissociation between MVPA and Repetition Suppression, *Neuroimage*, <http://dx.doi.org/10.1016/j.neuroimage.2016.05.052>

Ferrara, K., & **Park, S.** (2016). Neural representation of scene boundaries, *Neuropsychologia*, <http://dx.doi.org/10.1016/j.neuropsychologia.2016.05.012>

**Park, S.**, Konkle, T., & Oliva, A. (2015). Parametric coding of the size and clutter of natural scenes in the human brain. *Cerebral Cortex*, *25* (7), 1792-1805.

**Park, S.**, & Chun, M. M. (2014). The constructive nature of scene perception. *Scene Vision*, ed. Kveraga, K. and Bar, M. MIT Press. ISBN: 9780262027854

**Park, S.**, Brady, T. F., Greene, M. R., & Oliva, A. (2011). Disentangling scene content from spatial boundary: Complementary roles for the PPA and LOC in representing real-world scenes. *Journal of Neuroscience*, *31*(4), 1333-1340.

Golomb, J. D., Albrecht, A., **Park, S.**, & Chun, M. M. (2011). Eye movements help link different views in scene-selective cortex. *Cerebral Cortex*. *21*:2094-2102.

Oliva, A., **Park, S.**, & Konkle, T. (2011). Representing, Perceiving and Remembering the Shape of Visual Space. *Vision in 3D Environments*, ed. L. R. Harris and M. Jenkin. Cambridge University Press. ISBN: 9781107001756

**Park, S.**, Chun, M. M., & Johnson, M. K. (2010). Refreshing and integrating visual scenes in scene-selective cortex. *Journal of Cognitive Neuroscience* *22*:12, 2813-2822.

**Park, S.**, & Chun, M. M. (2009). Different roles of the parahippocampal place area

(PPA) and retrosplenial cortex (RSC) in scene perception. *Neuroimage* 47, 1747-1756.

**Park, S.**, Intraub, H., Yi, D. -J., Widders, D., & Chun, M. M. (2007). Beyond the Edges of a view: Boundary extension in human scene-selective visual cortex. *Neuron* 54, 335-342.

**Park, S.**, Kim, M. -S., & Chun, M. M. (2007). Concurrent working memory load can facilitate selective attention: Evidence for Specialized Load. *Journal of Experimental Psychology: Human Perception & Performance* 33(5), 1062-1075.

### Conference Presentations

**Park, S.**, & Ferrara, K. (2016). Complementary neural representation of scene boundaries. Talk presented at the Symposium of *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Ferrara, K., Landau, B., & **Park, S.** (2016). Neural and behavioral sensitivity to boundary cues in Williams syndrome. Talk presented at the Symposium of *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Hatfield, M., McCloskey, M., & **Park, S.** (2016). Neural representation of object orientation reveals dissociation between MVPA and Repetition Suppression. Talk presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Cheng, R., Ferrara, K., & **Park, S.** (2016). Neural representation of the horizontal extent of spatial boundary cues. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Ferrara, K., Cheng, R., & **Park, S.** (2016). Neural sensitivity to boundary cues across different scene geometries. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Wiley, R. & **Park, S.** (2016). Context-based predictions and errors in scene-selective cortex. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Park, J., Johannes, K., Levine, M. & **Park, S.** (2016). Implicitly learned temporal association between targets attenuates AB effect. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Ferrara, K., Landau, B., & **Park, S.** (2015). Neural and behavioral sensitivity to boundary cues in Williams Syndrome. Talk presented at the Annual Meeting of the Society for Neuroscience, Chicago IL.

**Park, S.**, Ferrara, K., & Landau, B. (2015). Impaired behavioral and neural sensitivity to boundary cues in Williams Syndrome. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Ferrara, K., Furlong, S., Landau, B., & **Park, S.** (2015). Detailed visual memory capacity is present early in life. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Park, J. & **Park, S.** (2015). The representation of texture information in the parahippocampal place area. Poster presented at *the Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Ferrara, K., **Park, S.**, & Landau, B. (2015). Neural and behavioral sensitivity to boundary cues across development. Talk presented at *the Society for Research in Child Development*

Furlong, S., Ferrara, K., Landau, B., & **Park, S.** (2015). Visual memory for objects in young children is surprisingly detailed. Poster presented at *the Society for Research in Child Development*

Ferrara, K., & **Park, S.** (2014). Neural representation of different boundary cues. Talk presented at the *Annual Meeting of the Society for Neuroscience*, Washington D.C.

Hatfield, M., McCloskey, M., & **Park, S.** (2014). Orientation representation in object-selective cortex. Poster presented at the *Annual Meeting of the Society for Neuroscience*, Washington D.C.

Park, J. & **Park, S.** (2014). The nature of texture representation in the PPA. Poster presented at the *Annual Meeting of the Society for Neuroscience*, Washington D.C.

Kang, J., & **Park, S.** (2014). Neural representation for properties determining the navigability of a scene. Poster presented at the *Annual Meeting of the Society for Neuroscience*, Washington D.C.

Hatfield, McCloskey, & **Park, S.** (2014). Mirror-image confusion in object-selective cortex: Are all reflections alike? Poster presented at the *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL

Ferrara, K., Landau, B., & **Park, S.** (2013). The development of Visual Statistical learning at the Categorical level. Poster presented at the *Annual Meeting of the Psychonomic Society*, Toronto, Canada

Johannes, K., & **Park, S.** (2013). Trained statistical structure among targets attenuates the Attentional Blink. Poster presented at the *Annual Meeting on Object Perception, Attention, and Memory*, Toronto, Canada

**Park, S.**, Levine, M., & Dunne, M. (2013). Neural representation of the navigability in a scene. Talk presented at the *Annual Meeting of the Vision Sciences Society*, Naples, FL

Ferrara, K., & **Park, S.** (2013). The size of space defined by different types of boundary cues. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, FL

**Park, S.**, Levine, M., & Dunne, M. (2012). Neural representation of the navigability in a scene. Poster presented at the *Annual Meeting of the Society for Neuroscience*, New Orleans, LA.

**Park, S.**, Konkle, T., & Oliva, A. (2011). Neural coding of the size of space and the amount of clutter in a scene. Talk presented at the *Annual Meeting of the Vision Sciences Society*, Naples, FL

**Park, S.**, Greene, M., Brady, T. F., & Oliva, A. (2011). Disentangling neural representation of scene content from spatial boundary. Talk presented at *SUNS*, Boston, MA.

**Park, S.**, Konkle, T., & Oliva, A. (2010). Neural representation of the size of space and the amount of clutter in a scene. Talk presented at the *Annual Meeting of the Society for Neuroscience*, San Diego, CA.

**Park, S.**, Konkle, T., & Oliva, A. (2010). Neural coding of scene volume: the Size of Space represented across the PPA and LOC. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, FL

**Park, S.**, Greene, M., Brady, T. F., & Oliva, A. (2009). Natural scene categorization by global scene properties: Evidence from patterns of fMRI activity. Talk presented at the *Annual Meeting of the Vision Sciences Society*, Naples, FL

Greene, M., **Park, S.**, & Oliva, A. (2009). Rapid scene understanding: evidence of global property processing before basic-level categorization. Poster presented at the *Annual Meeting of the Vision Sciences Society*, Naples, FL

**Park, S.**, Greene, M., Brady, T. F., & Oliva, A. (2009). Natural scene categorization by global scene properties: Evidence from patterns of fMRI activity. Poster presented at *SUNS*, Boston, MA.

**Park, S.**, Chun, M. M., & Johnson, M. K. (2008). Constructing an integrated world

in the mind: Refreshing a scene in the PPA and RSC. Poster presented at the *Annual Meeting of the Cognitive Neuroscience Society*, San Francisco, CA.

**Park, S.**, & Chun, M. M. (2007). Different roles of the parahippocampal place area (PPA) and retrosplenial cortex (RSC) in scene perception. Talk presented at the *Annual Meeting of the Vision Sciences Society*, Sarasota, FL.

**Park, S.**, & Chun, M. M. Different roles of the parahippocampal place area (PPA) and retrosplenial cortex (RSC) in scene perception (2007). Talk presented at *SUNS*, Boston, MA.

**Park, S.**, Intraub, H., Widders, D., Yi, D. J., & Chun, M. M. (2006). Boundary extension: Filling-out scene layout information in human scene selective cortex. Talk presented at *Annual Meeting of the Vision Sciences Society*, Sarasota, FL.

Golomb, J. D., **Park, S.**, & Chun, M.M. (2006). Type of working-memory load matters: Top-down influences on the attentional control of perceptual processing. Talk presented at *Annual Meeting of the Society for Neuroscience*: Atlanta, GA.

Golomb, J. D., **Park, S.**, & Chun, M. M. (2006). Working memory load can impair neural processing of unattended information. Poster presented at *Annual Meeting of the Vision Sciences Society*, Sarasota, FL.

**Park, S.**, Kim, M. -S., & Chun, M. M. (2005). The type of working memory load influences the magnitude of distractor interference in a selective attention task. Talk presented at *Annual Meeting of the Vision Sciences Society*, Sarasota, FL.

### Invited talks and colloquium

*Keynote speaker*, Spatial Cognition Symposium  
Penn State University

March, 2015

*Colloquium*, Institute for Research in Cognitive Science  
University of Pennsylvania

February, 2015

*SB Unit seminar*, Dept. of Brain and Cognitive Sciences  
Seoul National University, Seoul, Korea

August, 2013

*Seminar*, Center for Neuroscience Imaging Research  
Sungkyunkwan University, Suwon, Korea

August, 2013

*Departmental summer talk series*, Dept. of Psychology  
Korea University, Seoul, Korea

August, 2013

<i>Departmental cognitive lunch</i> , Dept. of Psychology University of Delaware	April, 2013
Laboratory of Brain and Cognition NIH	November, 2012
Zelicof Dinner Johns Hopkins University	November, 2012
Bodian Seminar, Mind Brain Institute Johns Hopkins University	February, 2012
<i>Departmental cognitive lunch</i> , Dept. of Psychology Yonsei University: Seoul, Korea.	July, 2010
Dept. of Cognitive Science Johns Hopkins University	March, 2010
<i>Departmental colloquium</i> , Dept. of Psychology Yonsei University: Seoul, Korea.	July, 2009
<i>Cognitive Brown Bag Series</i> , Dept. of Psychology University of New Hampshire	April, 2009
Brain and Cognitive Sciences Massachusetts Institute of Technology	June, 2008
<i>Cognitive area colloquium</i> , Dept. of Psychology Yonsei University: Seoul, Korea.	March, 2007

## Professional Activities

### **Ad Hoc Reviewer- Journals**

*Attention, Perception, & Psychophysics, Brain and Cognition, Cerebral Cortex, Cognition, Cortex, Experimental Brain Research, Human Brain Mapping, Journal of Cognitive Neuroscience, Journal of Experimental Psychology: General, Journal of Experimental Psychology: Human Perception and Performance, Journal of Neuroscience, Journal of Vision, Memory and Cognition Nature Neuroscience, Neuron, Neuroimag,e Neuropsychologia, PLoS One, Psychological Science, Visual Cognition*

### **Ad Hoc Reviewer- Granting Agencies**

*NSF BCS: Perception, Action & Cognition; Hadwen Trust for Humane Research; Science of Learning Institute, JHU*

## Professional Societies

*Society for Neuroscience; Vision Sciences Society*

## **Departmental Service (Johns Hopkins University)**

2011 - present      Department Colloquium Committee (chair)

## **Teaching**

### ***Courses Taught at Johns Hopkins University***

Cognitive Neuroscience ( <i>Flipped classroom</i> )	S 2016
Cognitive Neuroscience	S 2014-15
Cognitive Neuroimaging Methods in High-level vision	S 2013; F2015
Visual Cognition	F 2011-13;2016
Research Seminar in Cognitive Neuroscience of Vision	S & F

### ***Other courses***

Cognitive Neuroscience (JHU, Guest Lecturer)	S 2013
Laboratory in Visual Cognition (MIT, Guest Lecturer)	F 2009
Sex, Evolution and Human behavior (Yale, Teaching Fellow)	S 2007
Introduction to Psychology (Yale, Teaching Fellow)	S 2006
Introduction to Cognitive Science (Yale, Teaching Fellow)	F 2005
Introduction to Psychology (Yale, Teaching Fellow)	S 2005

## **Advising**

### **Graduate Students**

Katrina Ferrara (PhD, 2015)  
Miles Hatfield (PhD expected 2017)  
Jeongho Park (PhD expected 2018)  
Robert Wiley (PhD expected 2017)  
Annie Cheng (MA expected 2016)

### **Ph.D. Dissertation Defense Committees**

Caroline A. Montojo	Psychology, Ph.D. awarded 2011
Mariko Moher	Psychology, Ph.D. awarded 2011
Heeyeon Im	Psychology, Ph.D. awarded 2013
Kristen Johannes	Cognitive Science, Ph.D. awarded 2015
Katrina Ferrara	Cognitive Science, Ph.D. awarded 2015
David Rothlein	Cognitive Science, Ph.D. awarded 2015
Kitty Xu	Psychology, Ph.D. awarded 2016

### **PURA research awards for Undergraduate Student**

Annie Cheng (primary advisor)  
Sarah Furlong (secondary advisor)



## **Undergraduate Students**

Matthew Dunne, Elbert Pu, Songyee Park, Annie Cheng, Anna Belous, Harry Ngai, Sarah Furlong; Katie Cho; Elizabeth Chang; Jiwon Shin

## **Lab Personnel**

Matthew Levine (2012 - 2013) Jung Uk Kang (2013- 2015)