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# J. Stephen Higgins

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Department of Psychology &  
The Beckman Institute  
University of Illinois Urbana-Champaign  
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## Education

**Ph.D. Candidate**      **University of Illinois Urbana-Champaign**  
(Expected 2010)      Department of Psychology  
Visual Cognition and Human Performance  
Minors: Brain & Cognition, Cognition

**M.A.**                      **University of Illinois Urbana-Champaign**  
2009                      Department of Psychology

**B.A.**                      **Temple University, Philadelphia**  
2002                      *Magna Cum Laude*  
*Distinction in Psychology*  
Neuroscience Program

## Honors and Awards

- *List of Teachers Ranked as Excellent*, Introduction to Psychology, University of Illinois
- *List of Teachers Ranked as Excellent*, Sensation & Perception, University of Illinois
- *Graduate Teaching Certificate*, Center for Teaching Excellence, University of Illinois
- *Teacher Scholar Certificate*, Center for Teaching Excellence, University of Illinois (expected Spring 2010)
- *Lyle H. Lanier Travel Award*, University of Illinois, Spring 2008
- *VCHP graduate student conference travel award*, University of Illinois, Fall 2006
- *Fellowship*, Summer Institute in Cognitive Neuroscience, Dartmouth College, July 2006
- *Distinction in Psychology*, Temple University

## Research Interests

Visual cognition and its neural correlates, scene perception, object perception, object localization, canonical views of objects and scenes, spatial navigation.

## Teaching Interests

Cognitive Psychology, Introduction to Psychology, Sensation and Perception, Research Methods, Cognitive Neuroscience, Behavioral Neuroscience, advanced undergraduate seminars in scene/object perception, and the psychology of aesthetics.

## Research Experience

- August 2005 – Present Graduate Research Assistant  
Frances Wang, Ph.D. & David Irwin, Ph.D.  
University of Illinois, Psychology Department and Beckman  
Institute for Advanced Science and Technology.
- June 2002 – August 2005 Research Specialist  
Russell Epstein, Ph.D. University of Pennsylvania, Center for  
Cognitive Neuroscience, and Department of Psychology.
- Fall 2000 – Spring 2002 Undergraduate Research Assistant  
Thomas J. Gould Ph.D., Temple University, Department of  
Psychology, and Neuroscience Program.

## Teaching Experience

### Instructor:

Responsible for all aspects of course including: syllabus, lectures, laboratories, testing, assignments, and supervising teaching assistants.

- Human Factors w/ lab (Psych 358, Aviation 358, Industrial Engineering 340), Spring 2010, University of Illinois
- Perception & Sensory Processes (Psych 230), Summer 2009, University of Illinois
- Introduction to Psychology (Psych 100), Spring 2009, University of Illinois
- Introduction to Psychology (Psych 100), Fall 2008, University of Illinois
- Discovering Psychology (Psych 003), Spring 2002, Temple University
  - *Course for beginning psychology majors. Included: career choices in psychology, research skills, navigating the major, and organized outside speakers from different psychology disciplines.*
- Discovering Psychology (Psych 003), Fall 2001, Temple University

### Teaching Assistant:

- Cognitive Psychology Lab (Psych 331), Fall 2009, University of Illinois
  - *Responsible for teaching two lab sections about literature review, experimental design, statistical analysis, scientific reporting, and presentation.*
- Research Experience in Cognitive Neuroscience (Psych 349), Fall 2005, University of Pennsylvania.
  - *Responsible for teaching technical aspects of experiment creation and fMRI data analysis.*
- Research Experience in Cognitive Neuroscience (Psych 349), Fall 2004, University of Pennsylvania.

## Mentoring Experience:

- Honors Theses & Independent Study
  - Worked with multiple students designing experiments, writing IRB proposals, performing data analysis – both behavioral and fMRI, thesis writing, and conference presentation.
- James Scholar Program
  - Supervised a group of freshman honors students from Psych 100 in the completion of their James Scholar projects. Each week students read a research article and blogged about it.

## Publications

^ Undergraduate collaborator

**Higgins, J.S.**, Simons, D.J., & Wang, R.F. (Submitted). Popping in and out of existence: The effect of gradual and abrupt occlusion on object localization.

**Higgins, J.S.**, & Wang, R.F. (In Press). A Landmark Effect in the Perceived Displacement of Objects. *Vision Research*.

**Higgins, J.S.**, Irwin, D.E., Thomas, L.E., & Wang, R.F. (2009). Visual direction constancy across eye blinks. *Attention, Perception, & Psychophysics*. 71 (7), 1607-1617.

Epstein, R.A., **Higgins, J.S.**, ^Jablonksi, K., & Feiler, A.M. (2007). Visual scene processing in familiar and unfamiliar environments. *Journal of Neurophysiology*. 97: 3670-3683.

Epstein, R.A. & **Higgins, J.S.** (2007). Differential parahippocampal and retrosplenial involvement in three types of visual scene recognition. *Cerebral Cortex*, 17: 1680-1693.

**Higgins, J.S.**, Wang, R.F., & Irwin, D.E. (2007). The landmark effect in perceived object stability: A general mechanism. *Visual Cognition*. 15(1):91-94

Epstein, R.A., **Higgins, J.S.**, ^Parker, W., Aguirre, G.K., & ^Cooperman, S. (2006). Cortical correlates of face and scene inversion: A comparison. *Neuropsychologia*. 44: 1145-1158

Epstein, R.A., **Higgins, J.S.**, & Thompson-Schill, S.L. (2005). Individual differences in navigational ability predict the accuracy of cortical scene representations. *Journal of Cognitive Neuroscience*. 17: 73-83.

Gould, T.J. & **Higgins, J.S.** (2003). Nicotine Enhances Contextual Fear Conditioning in C57BL/6J Mice at 1 and 7 Days Post-Training. *Neurobiology of Learning and Memory*. 80(2): 147-57.

## Manuscripts

**Higgins, J.S.** & Wang, R.F. (In Preparation). Scale differences in determining the canonical view for objects and scenes.

**Higgins, J.S.** & Wang, R.F. (In Preparation). Connectedness determines the canonical view for objects and scenes independent of task requirements.

Oliver R.T., **Higgins, J.S.**, Gabrieli, J.D.E., & Thompson-Schill, S.L., (In Preparation). Repetition priming of object appearance knowledge.

## Conference Presentations

^ Undergraduate collaborator

**Higgins, J.S.** & Wang, R.F. (2009). Connectedness determines the canonical view for objects and scenes independent of task requirements. *The 17th Annual Workshop on Object Perception Attention and Memory*. Boston, MA.

**Higgins, J.S.** & Wang, R.F. (2008). Do Canonical Views of Objects and Scenes Differ? *The 16th Annual Workshop on Object Perception Attention and Memory*. Chicago, IL.

**Higgins, J.S.**, Simons, D.J., & Wang, R.F. (2008). Popping in and out of existence: The effect of gradual and abrupt occlusion on object localization. Talk presented at *Vision Sciences Society Annual Meeting*, Sarasota. FL.

Parker, W., **Higgins, J.S.**, Feiler, A., & Epstein, R.A., (2007). Two kinds of fMRI repetition suppression? *Vision Sciences Society Annual Meeting*, Sarasota. FL.

Oliver R.T., **Higgins, J.S.**, ^Baik, A., & Thompson-Schill, S.L., (2007). Repetition priming of appearance knowledge. *Vision Sciences Society Annual Meeting*, Sarasota. FL.

**Higgins, J.S.**, Wang, R.F., & Irwin, D.E. (2006). The landmark effect in perceived object stability: A general mechanism. Talk presented at *The 14th Annual Workshop on Object Perception Attention and Memory*, Houston, TX.

**Higgins, J.S.**, Irwin, D.E., Wang, R.F., & Thomas, L.E. (2006). A blink is not a blank, but it can be a saccade. *Psychonomic Society Annual Meeting*, Houston, TX.

Epstein, R.A. & **Higgins, J.S.** (2006). Parahippocampal and retrosplenial involvement in two kinds of scene recognition. *Vision Sciences Society Annual Meeting*, Sarasota, FL.

Epstein, R.A. & **Higgins, J.S.** (2005). What is it? Where is it? What's going on? Cortical mechanisms mediating three types of scene recognition. *Society for Neuroscience Annual Meeting*, Washington D.C.

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Epstein, R.A., **Higgins, J.S.**, & Jablonski, K. (2005). Scene processing in familiar and unfamiliar environments. *Cognitive Neuroscience Society Annual Meeting*, New York, NY.

Epstein, R.A., & **Higgins, J.S.** (2004). Moving forwards, veering left, and spinning in place: An fMRI study of spatial transformations of the body. *Vision Sciences Society Annual Meeting*, Sarasota, FL.

**Higgins, J.S.**, & Epstein, R.A. (2004). Moving forwards, veering left, and spinning in place: An fMRI study of spatial transformations of the body. *Cognitive Neuroscience Society Annual Meeting*, San Francisco, CA.

Thompson-Schill, S.L., **Higgins, J.S.**, & Epstein, R.A. (2003). Individual differences in navigational ability predict viewpoint-specific priming in parahippocampal cortex. *Society for Neuroscience Annual Meeting*, New Orleans, LA.

Epstein, R.A., **Higgins, J.S.**, & Thompson-Schill, S.L. (2003). Viewpoint-specific and viewpoint-invariant scene priming in the parahippocampal cortex. *Society for Neuroscience Annual Meeting*, New Orleans, LA.

**Higgins, J.S.** & Gould, T.J. (2002). Lasting Nicotine Enhancement of Contextual Fear Conditioning in C57BL/6J Mice. *Society for Neuroscience, Philadelphia Chapter, Annual Meeting*, Philadelphia, PA.

**Higgins, J.S.** & Gould, T.J. (2001). Lasting Nicotine Enhancement of Contextual Fear Conditioning in C57BL/6J Mice. *Pavlovian Society Annual Meeting*, New Brunswick, NJ.

### Invited Talks

“Connectedness determines the canonical view for objects and scenes independent of task requirements.” *Vision +, Northwestern University*. October 2009.

“Connectedness determines the canonical view for objects and scenes independent of task requirements.” *Pacific Northwest National Lab*. September 2009.

“Connectedness determines the canonical view for objects and scenes independent of task requirements.” *Visual Cognition and Human Performance Brown Bag, University of Illinois*. April 2009.

“A blink is not a blank, but it can be a saccade.” *Visual Cognition and Human Performance Brown Bag, University of Illinois*. October 2006.

“What is it? Where is it? What's going on? Cortical mechanisms mediating three types of scene recognition.” *Visual Cognition and Human Performance Brown Bag, University of Illinois*. September 2005.

## **Service and Affiliations**

### **Ad Hoc Reviews**

Vision Research

### **Service**

Psychology Graduate Student Organization:  
University of Illinois  
2008-2010

Psychology Graduate Education Committee  
University of Illinois  
2008-2010

### **Affiliations**

Association for Psychological Science  
Vision Sciences Society  
Human Factors and Ergonomic Society

## **Technical Skills**

Statistical Software: SPSS, SAS, MATLAB, SYSTAT  
Programming: MATLAB  
fMRI data analysis: SPM, Voxbo, AFNI  
3D Modeling: Bryce, Vue 7 Esprit  
Unix & Web Server Administrator

## References

(R – research, T- teaching)

Ranxiao Frances Wang (R)  
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