

Yaoda Xu: Curriculum Vita
(Updated September 21, 2017)

Personal Data

Department of Psychology
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Citizenship: China
Immigration Status: US permanent resident

Degrees and Education

- 1995 – 2000 Ph.D. in Cognitive Neuroscience, Dept. of Brain & Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, Massachusetts (Advisors: Mary Potter and Suzanne Corkin)
1992 – 1995 BA in Biology with minor in Psychology, Elms College, Chicopee, Massachusetts
1989 – 1992 Undergraduate studies in Solid State Physics, Fudan University, Shanghai, China

Professional Experience

- 2014 - now Associate professor, Psychology Department, Harvard University
2008 - 2014 Assistant professor, Psychology Department, Harvard University
2004 - 2008 Associate research scientist, Psychology Department, Yale University (Advisor: Marvin Chun).
2001 - 2003 Postdoctoral fellow, Vision Sciences Laboratory, Psychology Department, Harvard University (Advisor: Ken Nakayama), and Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology (Advisor: Nancy Kanwisher)

Research Grants

- 2012-2016 “Representing object ensembles in the human brain: Where, when and what”
National Eye Institute, National Institutes of Health (1R01EY022355)
PI: Yaoda Xu
Total amount: \$1,267,500
- 2012 “The role of human parietal cortex in visual object representation”
Mind/Brain/Behavior Faculty Award, Harvard University
PI: Yaoda Xu & Lorella Battelli
Total amount: \$30,000
- 2012 “The representation of object parts and configurations in the human brain”
Milton Fund, Harvard University
PI: Yaoda Xu
Total amount: \$39,438
- 2007-2011 “Understanding the role of the parietal cortex in visual object grouping and feature binding”

National Science Foundation, Program in Cognitive Neuroscience (NSF 0719975 & 0855112)

PI: Yaoda Xu

Total amount: \$525,000

2005-2008 “The neural representation of object part configuration”
National Science Foundation, Program in Cognitive Neuroscience (NSF 0518138)
PI: Yaoda Xu
Total amount: \$494,988

2000-2003 “Objects through the eyes of visual Short-term memory”
McDonnell-Pew Investigator Initiated Grant Award in Cognitive Neuroscience (JSMF 2002045)
PI: Yaoda Xu
Total amount: \$150,000.

Research Interests

Cognitive neuroscience of vision and cognition

Areas of expertise: Visual object processing
Visual working memory
Visual Attention

Methods used: Functional magnetic resonance imaging (fMRI)
Behavioral method
Neuropsychological patient work

Manuscripts

Vaziri Pashkam, M. & Xu, Y. (under review). An information-driven two-pathway characterization of occipito-temporal and posterior parietal visual object representations.

Xu, Y. (in preparation). An information-based view of posterior parietal cortex in vision, cognition and action. Invited submission to *Nature Neuroscience* as a perspective article.

Xu, Y. (in preparation). The role of posterior parietal cortex in adaptive visual information processing. Invited submission to *Annual Review in Vision Science* as a review article.

Wang, R. & Xu, Y. (in preparation). Neural representation of contextual information for object pairs in human ventral visual cortex.

Publications in Reverse Chronological Order

Xu, Y. (2017). Reevaluating the sensory account of visual working memory storage. *Trends in Cognitive Science*, 21, 794–815 .

Vaziri Pashkam, M. & Xu, Y. (2017). Goal-directed visual processing differentially impacts human ventral and dorsal visual representations. *Journal of Neuroscience* 37, 8767–8782.

Jeong, S.K. & Xu, Y. (2017). Task-context dependent linear representation of multiple visual objects in human parietal cortex. *Journal of Cognitive Neuroscience* 29, 1778–1789.

Cant, J. S. & Xu, Y. (2017). The contribution of object shape and surface properties to object-ensemble representation in anterior-medial ventral visual cortex. *Journal of Cognitive Neuroscience*, 29, 398–412.

- Bettencourt, K. & Xu, Y. (2016). Understanding location- and feature-based processing along the human intraparietal sulcus. *Journal of Neurophysiology*, 116, 1488–1497.
- Jeong, S. K. & Xu, Y. (2016). The impact of top-down spatial attention on laterality and hemispheric asymmetry in human parietal cortex. *Journal of Vision*, 16(10):2, 1–21.
- Jeong, S. K. & Xu, Y. (2016). Behaviorally relevant abstract object identity representation in the human parietal cortex. *Journal of Neuroscience*, 36, 1607–1619.
- Bettencourt, K. C. & Xu, Y. (2016). Decoding the content of visual short-term memory under distraction in occipital and parietal areas. *Nature Neuroscience*, 19, 150–157.
- Cant, J. S. & Xu, Y. (2015). The impact of density and ratio on object-ensemble representation in human anterior-medial ventral visual cortex. *Cerebral Cortex*, 25, 4226–4239.
- Cant, J. S., Sun, S. & Xu, Y. (2015) Distinct cognitive mechanisms involved in the processing of single objects and object ensembles. *Journal of Vision*, 15(4):12, 1–21.
- Xu, Y. & Jeong, S. (2015). The contribution of human superior intra-parietal sulcus to visual short-term memory and perception. In: *Mechanisms of Sensory Working Memory: Attention and Performance XXV*, Jolicoeur, P. and Martinez-Trujillo, J. (eds.), 33–42.
- Zhang, J., Liu, Y., & Xu, Y. (2015). Neural decoding reveals impaired face configural processing in the right fusiform face area of individuals with developmental prosopagnosia. *Journal of Neuroscience*, 35, 1539–1548.
- Xu, Y. (2014). Inferior frontal junction biases perception through neural synchrony. *Trends in Cognitive Sciences*, 18, 447–448.
- Poltoratski, S. & Xu, Y. (2013). The association of color memory and enumeration of multiple spatially overlapping sets. *Journal of Vision*, 13(8):6, 1–11.
- Bettencourt, K. & Xu, Y. (2013). The role of transverse occipital sulcus in scene perception and its relationship to object individuation in inferior intraparietal sulcus. *Journal of Cognitive Neuroscience*, 25, 1711–1722.
- Jeong, S. & Xu, Y. (2013). Neural representation of targets and distractors during object individuation and identification. *Journal of Cognitive Neuroscience*, 25, 117–126.
- Cant, J. S. & Xu, Y. (2012). Object ensemble processing in human anterior-medial ventral visual cortex. *Journal of Neuroscience*, 32, 7685–7700.
- Xu, Y. (2010). The impact of item clustering on visual search: It all depends on the nature of the visual search. *Journal of Vision*, 10(14):24, 1–9.
- Xu, Y. (2010). The neural fate of task-irrelevant features in object-based processing. *Journal of Neuroscience*, 30, 14020–14028.
- Bi, Y., Xu, Y., & Caramazza, A. (2009). Orthographic and phonological effects in the picture word interference paradigm: Evidence from a logographic language. *Applied Psycholinguistics*, 30, 637–658.
- Xu, Y. & Chun, M. M. (2009). Selecting and perceiving multiple visual objects. *Trends in Cognitive Sciences*, 13, 167–174.
- Xu, Y. (2009). Distinctive neural mechanisms supporting visual object individuation and identification. *Journal of Cognitive Neuroscience*, 21, 511–519.
- Xu, Y. (2008). Representing connected and disconnected shapes in human inferior intra-parietal sulcus. *Neuroimage*, 40, 1849–1856.
- Xu, Y. & Chun, M. M. (2007). Visual grouping in human parietal cortex. *Proceedings of the National Academy of Sciences, USA*, 104, 18766–18771.
- Xu, Y. & Nakayama, K. (2007). Visual short-term memory benefit for objects on different 3-D surfaces. *Journal of Experimental Psychology: General*, 136, 653–662.

- Xu, Y. (2007). The role of the superior intraparietal sulcus in supporting visual short-term memory for multifeature objects. *Journal of Neuroscience*, *27*, 11676–11686.
- Xu, Y., Turk-Browne, N. B., & Chun, M. M. (2007). Dissociating task performance from fMRI repetition attenuation in ventral visual cortex. *Journal of Neuroscience*, *27*, 5981–5985.
- Xu, Y. & Chun, M. M. (2006). Dissociable neural mechanisms supporting visual short-term memory for objects. *Nature*, *440*, 91–95.
- Xu, Y. (2006). Understanding the object benefit in visual short-term memory: The roles of feature proximity and connectedness. *Perception & Psychophysics*, *68*, 815–828.
- Xu, Y. (2005). Revisiting the role of the fusiform face area in visual expertise. *Cerebral Cortex*, *15*, 1234–1242.
- Xu, Y., Liu, J., & Kanwisher, N. (2005). The M170 is selective for faces, not for expertise. *Neuropsychologia*, *43*, 588–597.
- Xu, Y. (2002). Encoding color and shape from different parts of an object in visual short-term memory. *Perception & Psychophysics*, *64*, 1260–1280.
- Xu, Y. (2002). Limitations of object-based feature encoding in visual short-term memory. *Journal of Experimental Psychology: Human Perception and Performance*, *28*, 458–468.
- Xu, Y. (2002). Feature integration across parts in visual search. *Perception*, *31*, 1335–1347.
- Xu, Y. & Singh, M. (2002). Early computation of part structure: Evidence from visual search. *Perception & Psychophysics*, *67*, 1039–1054.
- Scholl, B. J., & Xu, Y. (2001). The magical number 4 in vision. *Behavioral and Brain Sciences*, *24*, 145–146.
- Xu, Y., & Corkin, S. (2001). H.M. revisits the Tower of Hanoi puzzle. *Neuropsychology*, *15*, 69–79.
- Xu, Y., Pollatsek, A., & Potter, M. C. (1999). The activation of phonology during silent Chinese word reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *25*, 838–857.

Conference Presentations

2017

- Taylor, J. & Xu, Y. (2017). To bind or not to bind? Neural coding of color and shape. Talk to be presented at the 47th Annual Meeting of the Society for Neuroscience. Washington, DC.
- Wang, R. & Xu, Y. (2017). Neural representation of Layout and Relational Information among Multiple Objects. Talk to be presented at the 47th Annual Meeting of the Society for Neuroscience. Washington, DC.
- Taylor, J. & Xu, Y. (2017). Effect of task on object category representations across human ventral, dorsal, and frontal brain regions. Poster presented at the 17th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Vaziri Pashkam, M. & Xu, Y. (2017). Spatial frequency tolerant object representations in the ventral and dorsal visual processing pathways. Poster presented at the 17th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.

2016

- Taylor, J., Vaziri Pashkam, M., & Xu, Y. (2016). Attention to object form modulates informational connectivity between dorsal and ventral visual streams. Poster presented at the 46th Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Wang, R., & Xu, Y. (2016). Neural representation of action-related object pairs in human visual cortex. Poster presented at the 46th Annual Meeting of the Society for Neuroscience. San Diego, CA.

- Xu, Y. & Vaziri Pashkam, M. (2016). Rediscovering the ventral and dorsal pathways of visual information processing. Talk presented at the 46th Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Cant, J.S., & Xu, Y. (2016). *The neural representation of outliers in object-ensemble perception*. Poster presented at the 16th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Vaziri Pashkam, M. & Xu, Y. (2016). Effect of task on object responses in human parietal and occipital-temporal cortices: similarities and differences. Poster presented at the 16th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Wang R. & Xu, Y. (2016). Contextual facilitation of action-related object pairs. Poster presented at the 16th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Xu, Y. (2016). *Decoding visual representations in the human parietal cortex*. Talk presented at the symposium on "The parietal cortex in vision, cognition, and action" (co-organized by Yaoda Xu and David Freedman) at the 16th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.

2015

- Vaziri Pashkam, M. & Xu, Y. (2015). *Attentional modulation of object category decoding in human parietal and occipito-temporal regions*. Talk presented at the 45th Annual Meeting of the Society for Neuroscience. Chicago, DC.
- Wang R. & Xu, Y. (2015). *Neural representation of contextual consistency and position regularity of objects in a pair*. Talk presented at the 45th Annual Meeting of the Society for Neuroscience. Chicago, DC.
- Xu, Y. & Bettencourt, K. (2015). *Decoding reveals superior IPS VSTM representation tracks the behaviorally perceived contents of VSTM*. Talk presented at the 45th Annual Meeting of the Society for Neuroscience. Chicago, DC.
- Bettencourt, K. & Xu, Y. (2015). *Understanding the nature of visual short-term memory representation in human parietal cortex*. Poster presented at the 15th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Ross, D., Tamber-Rosenau, B., Palmeri, P., Zhang, J., Xu, Y., & Gauthier, I. *High Resolution fMRI Reveals Holistic Car Representations in the anterior FFA of Car Experts*. Poster presented at the 15th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Vaziri Pashkam, M. & Xu, Y. (2015). *Object representations in human parietal and occipito-temporal cortices: Similarities and differences*. Talk presented at the 15th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Wang, R. & Xu, Y. (2015). *Neural representation of contextually consistent and inconsistent object pairs in human ventral visual cortex*. Poster presented at the 15th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Zhang, J. & Xu, Y. (2015). *fMRI decoding reveals neural representations of grouping in ventral visual cortex*. Poster presented at the 15th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.

2014

- Bettencourt, K. & Xu, Y. (2014). *Decoding under distraction reveals distinct occipital and parietal contributions to visual short-term memory representation*. Talk presented at the 44th Annual Meeting of the Society for Neuroscience. Washington, DC.

- Jeong, S.K. & Xu, Y. (2014). *Abstract face identity representation in human superior intra-parietal sulcus reflects perceived face identity similarity*. Talk presented at the 44th Annual Meeting of the Society for Neuroscience. Washington, DC.
- Vaziri Pashkam, M. & Xu, Y. (2014). *Decoding invariant visual object representations in human parietal cortex*. Talk presented at the 44th Annual Meeting of the Society for Neuroscience. Washington, DC.
- Zhang, J., Liu, J. & Xu, Y. (2014). *fMRI decoding reveals impaired face configural processing in the right fusiform face area of individuals with developmental prosopagnosia*. Talk presented at the 44th Annual Meeting of the Society for Neuroscience. Washington, DC.
- Bettencourt, K. & Xu, Y. (2014). *Decoding reveals distractor modulation of visual short-term memory contents in occipital but not in parietal cortices*. Talk presented at the 14th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Jeong, S.K. & Xu, Y. (2014). *Task-context dependent visual object representation in human parietal cortex*. Poster presented at the 14th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Vaziri Pashkam, M. & Xu, Y. (2014). *Decoding visual object representation in human parietal cortex*. Poster presented at the 14th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Wang, R. & Xu, Y. (2014). *Neural representation of ensemble orientation in human visual cortex*. Poster presented at the 14th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.
- Zhang, J., Liu, J. & Xu, Y. (2014). *fMRI decoding reveals impaired face configuration representation in the right fusiform face area of individuals with developmental prosopagnosia*. Talk presented at the 14th Annual Meeting of the Vision Sciences Society. St Pete's Beach, FL.

2013

- Bettencourt, K. & Xu, Y. (2013). *Decoding visual short-term memory contents in occipital and parietal cortices under distraction*. Poster to presented at the 43rd Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Jeong, S.K. & Xu, Y. (2013). *Object identity representation in human superior intra-parietal sulcus*. Poster to presented at the 43rd Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Vaziri Pashkam, M. & Xu, Y. (2013). *The contribution of human parietal cortex to conceptual categorization*. Talk presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Jeong, S.K. & Xu, Y. (2013). *The representation of face identity in human parietal cortex*. Talk presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Zhang, J. & Xu, Y. (2013). *The representation of object parts in the human brain*. Talk presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Cant, J. & Xu, Y. (2013). *Independence between shape and texture processing in single-object but not in object-ensemble perception*. Poster presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Bettencourt, K. & Xu, Y. (2013). *The impact of distractors on visual short-term memory representation in early visual areas*. Poster presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Zhang, X. & Xu, Y. (2013). *Integrated neural representation of object identity and layout during scene processing*. Poster presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Wang, R. & Xu, Y. (2013). *Neural Preference for Vertical Symmetry*. Poster presented at the 13th Annual Meeting of the Vision Sciences Society. Naples, FL.

2012

- Cant, J. & Xu, Y. (2012). *Changes in ratio, but not density, modulates object ensemble representation in anterior-medial ventral visual cortex*. Talk presented at the 42nd Annual Meeting of the Society for Neuroscience. New Orleans, LA.
- Jeong, S.K. & Xu, Y. (2012). *Flexible visual information representation in human parietal cortex*. Poster presented at the 42nd Annual Meeting of the Society for Neuroscience. New Orleans, LA.
- Vaziri Pashkam, M. & Xu, Y. (2012). *Contribution of human parietal cortex to object categorization under uncertainty*. Poster presented at the 42nd Annual Meeting of the Society for Neuroscience. New Orleans, LA.
- Zhang, J., Song, Y., Liu, J., & Xu, Y. (2012). *Interactive coding of parts during visual object representation in the human brain*. Poster presented at the 42nd Annual Meeting of the Society for Neuroscience. New Orleans, LA.
- Cant, J. & Xu, Y. (2012). *The impact of density and ratio on object-ensemble representation in anterior-medial ventral visual cortex*. Poster presented at the 12th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Jeong, S.K. & Xu, Y. (2012). *Decoding location and category information in human parietal cortex*. Poster presented at the 12th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Vaziri Pashkam, M. & Xu, Y. (2012). *Object representation in human parietal cortex and its functional significance*. Poster presented at the 12th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Zhang, J. & Xu, Y. (2012). *Holistic object representation in human visual cortex*. Talk presented at the 12th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Zhang, X. & Xu, Y. (2012). *The contribution of object layout and object identity to scene representations in the brain*. Poster presented at the 12th Annual Meeting of the Vision Sciences Society. Naples, FL.

2011

- Bettencourt, K. & Xu, Y. (2011). *The role of transverse occipital sulcus in scene perception and its relationship to object individuation in inferior intraparietal sulcus*. Poster presented at the 41st Annual Meeting of the Society for Neuroscience. Washington, DC.
- Jeong, S. K. & Xu, Y. (2011). *Hemispheric bias in the parietal region depends on top-down attentional engagement*. Poster presented at the 41st Annual Meeting of the Society for Neuroscience. Washington, DC.
- Xu, Y. & Cant, J. (2011). *The contribution of object shape and texture to object ensemble representation in ventral visual cortex*. Talk presented at the 41st Annual Meeting of the Society for Neuroscience. Washington, DC.
- Bettencourt, K. & Xu, Y. (2011). *Retinotopically defined parietal regions and their relationship to parietal areas involved in object individuation and identification*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Cant, J. & Xu, Y. (2011). *Object ensemble coding is distinct from texture processing in the parahippocampal place area*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Garrido, L., Cant, J., Xu, Y., & Nakayama, K. (2011). *Changes in face representations with visual familiarity*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society. Naples, FL.

- Hyde, D. C., Spelke, E. S., & Xu, Y. (2011). *Parietal representation of small and large number*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Jeong, S. K. & Xu, Y. (2011). *Parietal laterality effects in visual information processing during object individuation and identification*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Poltoraski, S. & Xu, Y. (2011). *Distractors, sequential presentation have no effect on numerosity judgment across multiple sets*. Poster presented at the 11th Annual Meeting of the Vision Sciences Society. Naples, FL.

2010

- Cant, J. & Xu, Y. (2010). *A link between the processing of object ensembles and texture in the parahippocampal place area*. Talk presented at the 40th Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Cant, J. & Xu, Y. (2010). *The flipside of object individuation: Neural representation for object ensembles*. Talk presented at the 10th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Jeong, S. K. & Xu, Y. (2010). *Neural representation of targets and distractors during object individuation and identification*. Poster presented at the 10th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Poltoraski, S. & Xu, Y. (2010). *Shared VSTM resources for enumerating sets and for encoding their colors*. Poster presented at the 10th Annual Meeting of the Vision Sciences Society. Naples, FL.

2008

- Xu, Y. (2008). *Neural fate of unattended features in object-based encoding*. Poster presented at the 8th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Xu, Y. (2008). *Dissociable parietal mechanisms supporting visual short-term memory for objects*. Pre-conference Symposium Talk presented at the 8th Annual Meeting of the Vision Sciences Society. Naples, FL.
- Xu, Y. (2008). *Dissociable parietal mechanisms supporting visual short-term memory for objects*. Symposium talk presented at the 2008 Cognitive Neuroscience Society Annual Meeting. San Francisco, CA.

2007

- Xu, Y. & Chun, M. M. (2007). *Grouping determines object-based selection in human inferior intra-parietal sulcus*. Talk presented at the 7th Annual Meeting of the Vision Sciences Society. Sarasota, FL.
- Turk-Browne, N. B., Xu, Y., & Chun, M. M. (2007). *Dissociating task performance from neural repetition effects in ventral visual cortex*. Talk presented at the 7th Annual Meeting of the Vision Sciences Society. Sarasota, FL.

2006

- Xu, Y. & Chun, M. M. (2006). *The neural signature of visual object grouping*. Talk presented at the 47th Annual Meeting of the Psychonomics Society. Houston, TX.
- Xu, Y. & Chun, M. M. (2006). *Brain mechanisms supporting visual short-term memory for multi-feature objects*. Talk presented at the 36th Annual Meeting of the Society for Neuroscience. Atlanta, GA.
- Xu, Y. & Chun, M. M. (2006). *Brain mechanisms supporting visual short-term memory for multi-feature objects*. Talk presented at the 6th Annual Meeting of the Vision Sciences Society. Sarasota, FL.

2005

- Xu, Y. & Chun, M. M. (2005). *Dissociable neural mechanisms supporting visual short-term memory for objects*. Talk presented at the 46th Annual Meeting of the Psychonomics Society. Toronto, Canada.
- Xu, Y. & Chun, M. M. (2005). *Dissociable neural mechanisms supporting visual short-term memory for objects*. Talk presented at the 35th Annual Meeting of the Society for Neuroscience. Washington, DC.
- Xu, Y. & Chun, M. M. (2005). *Representing objects in visual short-term memory: The roles of the human intra-parietal sulcus and the lateral occipital complex*. Poster presented at the 5th Annual Meeting of the Vision Sciences Society. Sarasota, FL.

2004

- Xu, Y. (2004). *Representing objects in visual short-term memory: Features, parts and possible neural mechanisms*. Invited symposium talk presented at the 45th Annual Meeting of the Psychonomics Society. Minneapolis, MN.
- Xu, Y. (2004). *An object benefit for encoding two colors of an object in visual short-term memory*. Poster presented at the 45th Annual Meeting of the Psychonomics Society. Minneapolis, MN.
- Xu, Y. & Chun, M. (2004). *The neural representation of object parts and configurations*. Talk presented at the 34th Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Xu, Y. & Kanwisher, N. (2004). *Attention, feature dimension, and face identity fMRI adaptation in the right fusiform face area*. Poster presented at the 4th Annual Meeting of the Vision Sciences Society. Sarasota, FL.

2003

- Xu, Y. (2003). *The effect of object part connection and spatial distance on visual short-term memory capacity*. Poster presented at the 44th Annual Meeting of the Psychonomics Society. Vancouver, Canada.
- Xu, Y. & Nakayama, K. (2003). *Placing objects at different depths increases visual short-term memory capacity*. Talk presented at the 3rd Annual Meeting of the Vision Sciences Society. Sarasota, FL.

2002

- Xu, Y. (2002). *The interaction of surfaces and visual short-term memory*. Poster presented at the 43rd Annual Meeting of the Psychonomic Society. Kansas City, MO.
- Xu, Y., Liu, J., & Kanwisher, N. G. (2002). *The M170 is Selective for Faces, not for Expertise*. Talk presented at the 32nd Annual Meeting of the Society for Neuroscience. Orlando, FL.

2001

- Xu, Y. & Kanwisher, N. G. (2001). *What is the Magnitude and Theoretical Significance of the FFA Response to Expert Stimuli?* Poster presented at the 31st Annual Meeting of the Society for Neuroscience. San Diego, CA.
- Xu, Y. & Nakayama, K. (2001). *Surface-based attention is separable from object-based attention*. Poster presented at the 42nd Annual Meeting of the Psychonomic Society. Orlando, FL.
- Xu, Y. (2001). *Limitations in object-based feature encoding in visual short-term memory*. Talk presented at 1st Annual Meeting of the Vision Sciences Society. Sarasota, FL.

2000 and earlier

- Xu, Y. (2000). *Conjunction search for features in different parts of an object*. Poster presented at the Annual Meeting for the Association for Research in Vision and Ophthalmology. Fort Lauderdale, FL.
- Xu, Y. (2000). *Subitizing and visual feature integration*. Poster presented at the 2000 Cognitive Neuroscience Society Annual Meeting. San Francisco, CA.
- Xu, Y., & Potter, M. C. (1999). *Objects through the eyes of visual working memory*. Talk presented at the 7th Annual Workshop on Object Perception and Memory. Los Angeles, CA.
- Xu, Y., & Potter, M. C. (1999). *Capacity and form of representation in visual working memory*. Poster presented at the 1999 Cognitive Neuroscience Society Annual Meeting. Washington, DC.
- Xu, Y., Potter, M. C., & Corkin, S. (1998). *Semantically related words increase retention in an amnesic patient*. Poster presented at the 1998 Cognitive Neuroscience Society Annual Meeting. San Francisco, CA.
- Xu, Y., & Corkin, S. (1996). *H.M. revisits the Tower of Hanoi puzzle*. Poster presented at the 26th Annual Meeting of the Society for Neuroscience. San Diego, CA.

Professional Activities

- 2017 Member of the editorial board of *Psychological Science*
- 2016 Participated at the “Meet the professor” mentoring event at the Annual Meeting of the Vision Sciences Society.
- 2015 Participated at the “Finding your path in graduate school” mentoring event at the Annual Meeting of the Vision Sciences Society.
Ad hoc review member for NIH grant review panel on Mechanisms of Sensory, Perceptual and Cognitive Processes Study Section (June). Washington, DC.
- 2008 NSF grant review panel on cognitive neuroscience (Fall). Washington, DC.
- 2006 NSF grant review panels on cognitive neuroscience (Spring & Fall). Washington, DC.
- 2000 – now Served as ad hoc reviewer for *Brain Research*, *Canadian Journal of Psychology*, *Cerebral Cortex*, *Cognition*, *Cognitive Affective & Behavioral Neuroscience*, *Current Biology*, *Developmental Psychology*, *Experimental 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 Neurophysiology*, *Journal of Vision*, *NeuroImage*, *Neuron*, *Perception & Psychophysics*, *PLoS One*, *Proceedings of the National Academy of Sciences*, *Psychological Science*, *Psychonomic Bulletin & Review*, *Trends in Cognitive Science*, *Visual Cognition*, and NSF grant proposals.
- 2003 & 2004 Organizer for the 11th and 12th Annual Workshop on Object Perception, Attention & Memory (OPAM), in Vancouver, Canada (2003) and Minneapolis, MN (2004). Played a key role in securing funding and waiving the registration fee for the workshop in 2004.
- 2000 – 2006 Member of the Psychonomic Society
- 2000 – now Member of the Vision Sciences Society
- 1995 – now Member of the Society for Neuroscience

Invited Talks**2017**

Reevaluate the sensory account of visual working memory. Working memory workshop. NYU-Abu Dhabi. Spring, 2017.

2016

Representing Parts and Wholes in the human Brain. Opening keynote address at the Configural Processing Consortium. Boston, MA. Fall, 2016.

Understand visual representation in human parietal cortex. Cognitive Lunch Series, MIT. Fall, 2016.

Multi-level and Dynamic Visual Object Representation in the Human Brain. Psychology Colloquium, University of Chicago. Spring, 2016.

Multi-level and Dynamic Visual Object Representation in the Human Brain. Cognitive Neuroscience Brownbag, Northwestern University. Spring, 2016.

Multi-level and Dynamic Visual Object Representation in the Human Brain. Cognitive Brownbag, Dartmouth College. Spring, 2016.

Multi-level and Dynamic Visual Object Representation in the Human Brain. Psychology Colloquium, Stanford University. Spring, 2016.

Multi-level and Dynamic Visual Object Representation in the Human Brain. Cognitive Colloquium, University of California, Berkeley. Spring, 2016

2015

Multi-level and Dynamic Visual Object Representation in the Human Brain. Center for Cognitive Sciences Colloquium, University of Minnesota, St. Paul. Fall, 2015.

Multi-level and Dynamic Visual Object Representation in the Human Brain. Perceptual Science Talk Series, Rutgers University, New Brunswick. Spring 2015.

Decoding Visual Representation in the Human Parietal Cortex. Penn Center for Cognitive Neuroscience Colloquium, University of Pennsylvania. Spring, 2015.

Decoding Visual Representation in the Human Parietal Cortex. Cognitive Brown Bag Series, Princeton University. Spring, 2015.

2014

Multi-level and dynamic visual object representation in the human brain. Cognitive Lunch Talk Series, Yale University. Fall, 2014.

Multi-level and dynamic visual object representation in the human brain. Brain, Behavior, and Cognition Talk Series, Boston University. Fall, 2014

Multi-level and dynamic visual object representation in the human brain. The seventh annual meeting of Concepts, Actions, and Objects: Functional and Neural Perspectives. Rovereto, Italy, May, 2014.

Multi-level and dynamic visual object representation in the human brain. Cognitive Science Colloquium, University of Arizona. Spring, 2014.

2013

Parietal contribution to visual short-term memory. XXV International Symposium on Attention and Performance "Mechanisms of Sensory Working Memory". Montréal, Canada. Summer, 2013.

Visual object representation in the human brain: From single objects to object ensembles. Boston College. Spring, 2013.

2012

Parietal mechanisms mediating visual information representation in visual short-term memory. Portland Working Memory Workshop. Portland, Oregon. Summer, 2012

Object specific and object ensemble representations in the human brain. Perceptual Expertise Network XXIV Workshop. Chicago, IL. Spring, 2012.

2011

Object specific and object ensemble representations in the human brain. Brainmap Seminar. MGH Martinos Center for Biomedical Imaging. Fall, 2011.

Object specific and object ensemble representations in the human brain. New England College of Optometry. Fall, 2011.

Object specific and object ensemble representations in the human brain. Brain and Cognition Talks. MGH Martinos Center for Biomedical Imaging. Spring, 2011.

2010

Object specific and object ensemble representations in the human brain. Boston University. Fall, 2010.

Selecting and perceiving multiple visual objects in the mind and brain. Berenson-Allen Center for Noninvasive Brain Stimulation, Beth Israel Deaconess Medical Center and Harvard Medical School. Spring, 2010.

2009

Selecting and perceiving multiple visual objects in the mind and brain. Visual attention lab, Brigham and Women's Hospital. Spring, 2009.

2008

Dissociable parietal mechanisms supporting visual object individuation and identification. Massachusetts Institute of Technology. Spring, 2008.

Dissociable parietal mechanisms supporting visual object individuation and identification. University of California, Davis. Spring, 2008.

Dissociable parietal mechanisms supporting visual object individuation and identification. University of California, San Diego. Spring, 2008.

Dissociable parietal mechanisms supporting visual object individuation and identification. Harvard University. Spring, 2008.

Dissociable parietal mechanisms supporting visual object individuation and identification. New York University. Spring, 2008.

Dissociable parietal mechanisms supporting visual object individuation and identification. State University of New York at Stony Brook. Spring, 2008.

2007

Dissociable parietal mechanisms supporting visual object individuation and identification. University of Massachusetts, Amherst. Fall, 2007.

Dissociable parietal mechanisms supporting visual object individuation and identification. Stanford University. Spring, 2007.

2006

Understanding visual object representations in the brain: Insights from visual working memory. Yale University Medical School. Fall, 2006.

Object type and token representations in the brain: Insights from visual short-term memory. Princeton University. Spring, 2006.

Object type and token representations in the brain: Insights from visual short-term memory. University of California, Irvine. Spring, 2006.

2005

Dissociable neural mechanisms supporting visual short-term memory for objects. Yale University. Fall, 2005.

2003

Object perception: From brain to behavior. University of Washington. Spring, 2003.