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Department of Psychological and Brain Sciences, Johns Hopkins University
Baltimore, MD 21218, USA

Positions

2017-   Assistant Professor, Psychological and Brain Sciences
            Johns Hopkins University

2012-2016   Post-Doctoral Researcher, Princeton Neuroscience Institute
            Princeton University
            Temporal dynamics of brain systems supporting episodic memory
            Advisor: Uri Hasson   Co-Advisor: Kenneth Norman

Education

2005-2011   PhD, Stanford University, Psychology (Neuroscience Area)
            Advisor: Anthony Wagner
            Dissertation: Prediction and novelty in the human medial temporal lobe

1998-2002   BS, Massachusetts Institute of Technology, Brain & Cognitive Sciences

Research History

2002-2005   University of Washington, Psychology
            Experiments in visual memory, with Geoffrey Loftus
            Experiments in psycholinguistics, with Lee Osterhout and Albert Kim

1999-2004   Massachussetts Institute of Technology, Brain & Cognitive Sciences
            Web-based interactive tutorials in motion and form (link)
            with Edward Adelson and Josh McDermott

2001-2002   Massachussetts Institute of Technology, Brain & Cognitive Sciences
            Behavioral and fMRI experiments in learning and memory
            with Anthony Wagner and Lila Davachi

2001-2002   Massachussetts Institute of Technology, Brain & Cognitive Sciences
            Behavioral experiments in psychophysics
            with Pawan Sinha and Antonio Torralba

Awards
T32 Princeton Quantitative Neuroscience Postdoctoral Training Grant (2013-2015);
Graduate Teaching Award, Stanford University (2008); Advanced Human
Communication Technologies Research Grant, Media-X Program (2007); National
Science Foundation Graduate Fellowship, Honorable Mention (2006 & 2007); Alberta
Engvall Siegel Fellowship, Stanford University (2005)

Society Memberships
Society for Neuroscience; Memory Disorders Research Society (elected)

Manuscripts

Chen J*, Leong YC*, Honey CJ, Yong CH, Norman KA, Hasson U (2017). Shared memories reveal shared structure in neural activity across individuals. *Nature Neuroscience*. (*co-authorship)

Baldassano C, **Chen J**, Zadbood A, Pillow JW, Hasson U, & Norman KA. (2017). Discovering event structure in continuous narrative perception and memory. *Neuron*.

Zadbood A, **Chen J**, Leong YC, Norman KA, & Hasson U. (2017). How we transmit memories to other brains: constructing shared neural representations via communication. *Cerebral Cortex*.

Vodrahalli K, Chen P-H, Liang Y, Baldassano C, **Chen J**, Yong E, Honey CH, Hasson U, Ramadge PJ, Norman KA, Arora S. (2017). Mapping between fMRI responses to movies and their natural language annotations. *NeuroImage*.

Yeshurun Y, Swanson S, Simony E, **Chen J**, Lazaridi C, Honey CJ, Hasson U (2017). Same story, different story: the neural representation of interpretive frameworks. *Psychological Science*.

Lositsky O, **Chen J**, Toker D, Honey CJ, Poppenk JL, Hasson U, Norman KA (2016). Neural pattern change during encoding of a narrative predicts retrospective duration estimates. *eLife*.

Zhang H, Chen PH, **Chen J**, Zhu X, Turek JS, Willkie TL, Hasson U, Ramadge PJ (2016). A searchlight factor model approach for locating shared information in multi-subject fMRI analysis. *arXiv*:1610.03914.

Simony E, Honey CJ, **Chen J**, Lositsky O, Yeshurun Y, A Wiesel, Hasson U (2016). Uncovering stimulus-induced network dynamics during narrative comprehension. *Nature Communications*.

Honey CJ, **Chen J**, Musch K, Hasson U (2016, commentary). How long is now? The multiple timescales of language processing. *Behavioral and Brain Sciences*.

Chen PH, Zhu X, Zhang H, Turek JS, **Chen J**, Willke TL, Hasson U, Ramadge PJ (2016). A convolutional autoencoder for multi-subject fMRI data aggregation. *arXiv*:1608.04846.

Chen J, Hasson U, Honey CJ (2015, commentary). Processing timescales as an organizing principle for primate cortex. *Neuron*.

Chen PH, **Chen J**, Yeshurun Y, Hasson U, Haxby J, Ramadge PJ (2015). A reduced-dimension fMRI shared response model. *Neural Information Processing Systems*.

Chen J, Honey CJ, Simony E, Arcaro MJ, Norman KA, Hasson U (2015). Accessing real-life episodic information from minutes versus hours earlier modulates hippocampal and high-order cortical dynamics. *Cerebral Cortex*.

Chen J, Cook PA, Wagner AD (2015). Prediction strength modulates responses in human area CA1 to sequence violations. *Journal of Neurophysiology*.

Gonzalez A, Hutchinson JB, Uncapher MR, **Chen J**, LaRocque KF, Foster BL, Rangarajan V, Parvizi J, Wagner AD (2015). Electrocorticography reveals the temporal dynamics of posterior parietal cortical activity during recognition memory decisions. *Proceedings of the National Academy of Sciences*.

Hasson U, **Chen J**, Honey CJ. Hierarchical process memory: memory as an integral component of information processing (2015). *Trends in Cognitive Sciences*.

Chen J, Dastjerdi M, Foster BL, Larocque KF, Rauschecker AM, Parvizi J, Wagner AD (2013). Human hippocampal increases in low-frequency power during associative prediction violations. *Neuropsychologia*.

Chen J, Olsen RK, Preston AR, Glover GH, & Wagner AD (2011). Associative retrieval processes in the human medial temporal lobe: hippocampal retrieval success and CA1 mismatch detection. *Learning & Memory*.

Rauschecker AM, Dastjerdi M, Weiner KS, Witthoft N, **Chen J**, Selimbeyoglu A, Parvizi J (2011). Illusions of visual motion elicited by electrical stimulation of human MT complex. *PLoS ONE*.

Clausen TP, **Chen J**, Bryant JP, Provenza FD, Villalba J (2010). Dynamics of the volatile defense of winter "dormant" balsam poplar (Populus balsamifera). *Journal of Chemical Ecology*.

Olsen RK, Nichols EA, **Chen J**, Hunt JF, Glover GH, Gabrieli JDE, Wagner, AD (2009). High-resolution fMRI of human medial temporal lobe reveals performance-related sustained and anticipatory activity during delayed-match-to-sample. *Journal of Neuroscience*.

Manuscripts submitted, under review, and in preparation

Sadeh T, **Chen J**, Y Goshen-Gottstein, Moscovitch M. (in revision). Spontaneous pre-encoding activation of specific neural patterns predicts memory at the item level.

Aly M, **Chen J**, Turk-Browne N, Hasson U. (submitted). Learning naturalistic temporal structure in the posterior medial network. Preprint: *bioRxiv*, doi:10.1101/196287.

Chen J*, Chow M*, Honey CJ, Norman KA, Hasson U (in prep). Differentiation of neural representations during processing of multiple information streams. (*co-authorship)

Chen J, Barense MD, Yeung L, Hasson U, Honey CJ (in prep). Cortical activity supports persistent memory representations during naturalistic experience despite hippocampal amnesia.

Teaching

2017	Advanced Research Design and Analysis (grad level), *Instructor*; JHU
2007-08	Cognitive Neuroscience (undergrad level), *Instructor;* Stanford
2008	Applied Vision (undergrad level), *Assistant;* Stanford
2008	Visual Neuroscience (undergrad level), *Assistant;* Stanford
2007	Neuroscience of Memory (undergrad level), *Assistant;* Stanford
2007	Statistics for Behavioral Sciences (undergrad level), *Assistant;* Stanford
2006-07	MATLAB Programming for Psychological Sciences (grad level), *Created & Instructed;* Stanford

Mentorship

2017-	Yoonjin Nah, PhD Student, Johns Hopkins
2017-	Peter Johnson, PhD Student, Johns Hopkins
2017-	Lisa Musz, Postdoctoral Researcher, Johns Hopkins
2017-	Zoey Zuo, Post-baccalaureate Researcher, Johns Hopkins
2016-17	Katherine Lee, Undergraduate Senior Thesis - ORFE, Princeton
2016	Peter Johnson, Undergraduate Senior Thesis - Psychology, Princeton
2013-14	Ioana Ferariu, Undergraduate Research - Psychology, Princeton
2013-14	Biyang Wang, Undergraduate Senior Thesis - Psychology, Princeton
2012-14	Yuan-Chang Leong, Research Assistant - Psychology, Princeton
2010-11	Paul Cook, Undergraduate Research - Psychology, Stanford
2009-10	Valerie Ross, Undergraduate Senior Thesis - Psychology, Stanford

Reviewing

Cerebral Cortex, Journal of Neuroscience, Current Biology, NeuroImage, PLOS One, Learning and Memory, Human Brain Mapping, Psychological Science, Nature Human Behavior, Psych Bulletin & Review, Nature Communications, Neuropsychologia, eNeuro

Invited Talks

2017   Shared structure in neural activity across individuals.
MIND Computational Summer School, Dartmouth College.

2016   Shared structure in neural activity across individuals.
Functional and Restorative Neurosurgery Unit Meeting, NIH.

2014   Reinstatement of neural patterns during narrative free recall.
Ebbinghaus Empire Colloquium, University of Toronto

2013   Reinstatement of neural patterns during narrative free recall.
Memory & Attention Group Meeting, New York University

2011   Prediction and novelty in the human medial temporal lobe.
Visual Neuroscience Group Meeting, UC Berkeley

2011   Prediction and novelty in the human medial temporal lobe.
Computational Perception & Cognition Group Meeting, MIT

Contributed Talks

2014   Reinstatement of neural patterns during narrative free recall.
Neuroimaging Methods Seminar, Princeton University

2013   How long is the window of short-term memory under naturalistic conditions?
Princeton Neuroscience Institute In-House Seminar, Princeton University

2009   Associative retrieval and mismatch signals in the CA fields of human hippocampus. Cognitive and Neuroscience Colloquium, Stanford University

2005   Pattern completion and prediction error in human hippocampus: A high-resolution fMRI study. Cognitive and Neuroscience Colloquium, Stanford University

Conference Presentations (Selected Talks)

Chen J, Barense M, Norman KA, Hasson U, Honey CJ (2016). Is the hippocampus necessary for long-timescale dynamics in the default network? Society for Neuroscience, San Diego, CA.

Chen J, Chow M, Norman KA, Hasson U (2015). Differentiation of neural representations during processing of multiple information streams. Society for Neuroscience, Chicago, IL.

Chen J, Leong YC, Norman KA, Hasson U (2014). Reinstatement of neural patterns during narrative free recall. Society for Neuroscience, Washington, DC.

Chen J (2014). Discussant for Polyn, S. Retrieved context in the medial temporal lobe: predicting the organization of human memory. Context and Episodic Memory Symposium, Philadelphia, PA.

Chen J, Leong YC, Norman KA, Hasson U (2014). Reinstatement of neural patterns during narrative free recall. Context and Episodic Memory Symposium, Philadelphia, PA.

Chen J, Wagner AD (2010). The effects of prediction strength on associative novelty signals in human CA1 and medial temporal lobe cortex: A high-resolution fMRI study. Society for Neuroscience, San Diego, CA.

Chen J, Wagner AD (2007). Associative retrieval and mismatch signals in the CA fields of human hippocampus. Bay Area Memory Meeting, Berkeley, CA.

Conference Presentations (Selected Posters)

Chen J, Leong YC, Norman KA, Hasson U (2014) Reinstatement of neural patterns during narrative free recall. Abstracts of the Cognitive Neuroscience Society.

Chen J, Honey CJ, Simony E, Hasson U (2013). How long is the window of short-term memory under naturalistic conditions? Society for Neuroscience Abstracts.

Chen J, Dastjerdi M, Foster BL, Shestyuk AY, Rauschecker AM, Parvizi J, Wagner AD (2011). Intracranial electrophysiological correlates of episodic memory in human hippocampus. Society for Neuroscience Abstracts.

Chen J, Wagner AD (2009). Prediction error and associative novelty in human hippocampus and medial temporal cortex: A high-resolution fMRI study. Society for Neuroscience Abstracts.

Chen J, Shohamy D, Ross V, Reeves B, Wagner AD (2008). The impact of social belief on the neurophysiology of learning and memory. Society for Neuroscience Abstracts.

Chen J, Olsen RK, Preston AR, Wagner AD (2007). Associative retrieval and mismatch signals in the CA fields of human hippocampus. Society for Neuroscience Abstracts.

Chen J, Shohamy D, Wagner AD (2007). Temporal dynamics of cortical ERPs during episodic and incremental learning. Abstracts of the Cognitive Neuroscience Society.

Chen J, Olsen RK, Preston AR, Wagner AD (2006). Pattern completion and prediction error in human hippocampus: A high-resolution fMRI study. Society for Neuroscience Abstracts.

Chen J, Bernstein DM, Loftus GR (2003). Accessible aspects of encoding context in picture memory. Annual meeting of the Northwest Cognition & Memory Society. Vancouver, BC.