

Pernille Hemmer

Department of Psychology,
Rutgers University

Email: pernille.hemmer@rutgers.edu

Web page: <http://www.rci.rutgers.edu/~ph221/>

PROFESSIONAL POSITIONS

2012- Assistant Professor, Department of Psychology, Rutgers University
2011-2012 Postdoctoral fellow, Syracuse University

EDUCATION

2011 PhD, University of California, Irvine
2009 M.A. Psychology, University of California, Irvine
2006 B.A. Psychology, University of California, Irvine - Summa cum Laude

HONORS AND AWARDS

2012 Recipient, Women in Cognitive Science Networking Travel Award
Recipient, Society for Mathematical Psychology Post Doc Travel Award
2011 Recipient, Society for Mathematical Psychology Post Doc Travel Award
2010 Recipient, Graduate Dean's Dissertation Fellowship
Recipient, Jean-Claude Falmagne Research Award
2009 Recipient, John I. Yellott Scholar Award
2008 Recipient, *Cognitive Science* best paper on modeling higher-level cognition

RESEARCH GRANTS

Internal

2013-2014 Rutgers University research Council Grant. *Updating Beliefs over Time*. Role: PI

External

2013-2014 Rockefeller Philanthropy Advisors. *Priors and Memory Laboratory*. Role: PI

PROFESSIONAL AFFILIATIONS

2013- Board member, the Society of Mathematical Psychology
2012- Women in Cognitive Science
2011- Women of Mathematical Psychology
2011- Psychonomics Society
2009- Society for Mathematical Psychology
2008- Cognitive Science Society
2008- Association for Psychological Science

PROFESSIONAL ACTIVITIES

2013-2014 Member, the Office for the Promotion of Women in Science, Engineering, and Mathematics (SciWomen) *faculty learning community*, Rutgers University
2013 Organizer, Women in Mathematical Psychology Symposium, Potsdam, Germany
2013 Participant, Women Take Flight Leadership workshop, Rutgers University
2013 Area Chair, graduate admissions committee, Department of Psychology, Rutgers University
2012 Participant, the Office for the Promotion of Women in Science, Engineering, and Mathematics (SciWomen) OASIS Leadership & Professional Development Program, Rutgers University

Ad-hoc reviewing (Journals)

Journal of Memory and Language, Psychonomic Bulletin and Review, Memory & Cognition, Cognitive Science, Cognitive Psychology, Journal of Forensic Psychology Practice, Journal of Mathematical Psychology, Journal of Cognitive Psychology, Journal of experimental Psychology: Learning, Memory and Cognition.

Ad-hoc reviewing (Conferences/Organizations)

Cognitive Science Society, French National Research Agency (ANR)

STUDENTS

Current Ph.D. Students

2012- Kimele Persaud (IGERT fellow, NSF GRFP fellow)
2013- Talia Robbins
Dominic Freschi

Current Masters Students

2013- Brian McMahan

Qualifying Exam Committee

2013 Neha Sinha

Masters Committee

2013- Michelle Cheng

Ph.D. thesis Committee

2012- Min Zhao

Undergraduate students supervised

2013- Jacqueline Krychiw (Aresty RA Fellow); Karan Jalundhwala (Aresty RA Fellow); Rachel Venaglia (Perceptual Science summer REU Fellow); Joseph DeAngelis (Aresty Rising Sophomore Summer Research Program Fellow); Yubei Tang (research assistant); Daljit Ahluwalia (work study student); Nelson Wu (work study student)
2012- Jordan Watson (work study student, Research assistant)
2012-2013 Josue Reyes (independent research project), Kelly Skovron (work study student),
2012 Sara Silverman (research assistant), Riley Kennedy (research assistant)
2010-2011 Mindy DeYoung (research assistant); Daniela Amado (research assistant).
2009-2011 Jenny Shi (mentored for SURP and UROP fellowships).
2008-2009 Stanton Mack (research assistant); Christina Maranhao (research assistant); Erin Horowitz (research assistant).

PUBLICATION LIST

(* indicates undergraduate student, underline indicates graduate student)

Journal Articles

Wang, L., Hemmer, P. & Leslie, A. (in review). Is belief-desire reasoning fundamentally rational? Comparing two Bayesian models of Theory of Mind development.

Hemmer, P., Tauber, S. & Steyvers, M. (in revision). Bayesian Estimation in rational Models.

Hemmer, P. & Persaud, K. (2014). Interactions between Categorical Knowledge and Episodic Memory across Domains. *Frontiers in Psychology* 5:584. doi: 10.3389/fpsyg.2014.00584.

Hemmer, P. & Criss, A. (2013). The Shape of Things to Come: Evaluating Word Frequency as a Continuous Variable in Recognition Memory. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 39(6):1947-52. doi: 10.1037/a0033744

Hemmer, P., Steyvers, M. (2009a). Integrating Episodic Memories and Prior Knowledge at Multiple Levels of Abstraction. *Psychonomic Bulletin & Review*, 16(1), 80-87

Hemmer, P. & Steyvers, M. (2009b). A Bayesian Account of Reconstructive Memory. *Topics in Cognitive Science*, 1, 189-202.

Brown, S.D., Steyvers, M., & Hemmer, P. (2007) Modeling Experimentally induced Strategy Shifts. *Psychological Science*, 18, 40-45.

Book Chapters

Steyvers, M. & Hemmer, P. (2012). Reconstruction from Memory in Naturalistic Environments. In Brian H. Ross (Ed), *The Psychology of Learning and Motivation*, (126-144). Elsevier Publishing

Papers in refereed conference proceedings

Persaud, K. & Hemmer, P. (2014). The influence of knowledge and expectations for color on episodic memory. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society*, Quebec City, CA: Cognitive Science Society.

Hemmer, P., Persaud, K., Venaglia, R.* & DeAngelis, J.* (2014). What's your source: Evaluating the effects of context in episodic memory for objects in natural scenes. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society*, Quebec City, CA: Cognitive Science Society.

Robbins, T., Hemmer, P., & Tang, Y.* (2014). Bayesian Updating: A Framework for Understanding Medical Decision Making. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Conference of the Cognitive Science Society*, Quebec City, CA: Cognitive Science Society.

Hemmer, P., Steyvers, M., & Miller, B. (2010). The Wisdom of Crowds with Informative Priors. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

Hemmer, P. & Steyvers, M. (2009c). Integrating Episodic and Semantic Information in Memory for Natural Scenes. In N.A. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31th Annual Conference of the Cognitive Science Society* (pp. 1557-1562). Austin, TX: Cognitive Science Society.

Steyvers, M., Lee, M.D., Miller, B., & Hemmer, P. (2009d). The Wisdom of Crowds in the Recollection of Order Information. In J. Lafferty, C. Williams (Eds.) *Advances in Neural Information Processing Systems*, 23. MIT Press.

Miller, B., Hemmer, P. Steyvers, M. & Lee, M.D. (2009e) The wisdom of crowds in rank ordering tasks. *Proceedings of the 9th International Conference of Cognitive Modeling*.

Hemmer, P. & Steyvers, M. (2008). A Bayesian Account of Reconstructive Memory. In V. Sloutsky, B. Love, and K. McRae (Eds.) *Proceedings of the 30th Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Lawrence Erlbaum

Published Abstracts

Aue, W., Hemmer, P. & Criss, A. (2013). A Bayesian Analysis of Bias in Single Item Recognition for Continuous Word frequency [Abstract]. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.) *Proceedings of the 35th Annual Conference of the Cognitive Science Society* (p. 3873). Austin TX: Cognitive Science Society.

Hemmer, P., Shi, J. & Steyvers, M. (2010). The influence of Real World Knowledge on Recall for Height [Abstract]. In S. Ohlsson & R. Catrambone (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* (p. 2402). Austin, TX: Cognitive Science Society.

Presentations at conferences and meetings

(* indicates undergraduate student, underline indicates graduate student, unless otherwise indicated by *italics* first author was the presenter).

- 2014 Hemmer, P. & Persaud, K. (2014, May). The relative contribution of global versus local context on free recall for natural scenes. Talk given at the Context and Episodic Memory Symposium, Philadelphia, PA.
- Persaud, K. & Hemmer, P. (2014, May). The influence of knowledge and expectations for color on episodic memory. Poster presented at the 10th Annual Context and Episodic Memory Symposium, Philadelphia, PA.
- DeAngelis J.* , Hemmer P., Persaud K., & Venaglia, R.* (2014, April). The Effect of Random Context on Memory. Poster presented at the National Conference on Undergraduate Research, University of Kentucky, Lexington KY.
- 2013 Persaud K., Hemmer P., DeAngelis, J.*, & Venaglia, R.* (2013, November). Context effects in episodic memory for natural scenes. Poster presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.
- Wang, L., Hemmer, P. & Leslie, A. M. (2013, October). Two Bayesian models of the development of belief-desire reasoning. Talk given at the Biannual Meeting of the Cognitive Development Society.
- Venaglia, R.* , Hemmer P., Persaud K., & DeAngelis, J.* (2013, August). The Effect of Context on Recall of Objects in a Natural Scene. Talk given at the Perceptual Science REU Symposium, Rutgers University, New Brunswick, NJ
- Hemmer, P. & Criss, A.H. (2013, August). Modeling a non-monotonic relationship in single item recognition for continuous word frequency. Talk given at the Annual Meeting of the Society for Mathematical Psychology, Potsdam, Germany.
- Aue, W. R., Hemmer, P. & Criss, A. H. (2013, August). A Bayesian Analysis of Bias in Single Item Recognition for Continuous Word frequency. Poster presented at Annual Conference of the Cognitive Science Society, Berlin, Germany.
- Hemmer, P. & Criss, A.H. (2013, July). Evaluating Word Frequency as a Continuous Variable in Recognition Memory. Talk given at the Annual Summer Interdisciplinary Conference, Cortina d'Ampezzo, Italy.
- DeAngelis,* J., Hemmer P., Persaud K., & Venaglia, R.* (2013, July). The Effect of Random Context on Memory. Poster presented at the Annual Aresty Summer Research Symposium, Rutgers University, New Brunswick, NJ
- Hemmer, P., Aue, W. R. & Criss, A. H. (2013, May). The Relationship between Multiple Memory Tasks. Talk given at the Context and Episodic Memory Symposium, Philadelphia.
- Persaud K., Hemmer P., & Reyes, J.* (2013, April). The influence of knowledge and expectations for colors on episodic memory. Poster presented at the 7th Annual Perceptual Science Forum, Rutgers University, New Brunswick, NJ
- 2012 Hemmer, P. & Criss, A.H. (2012, November). The effect of continuous word frequency, context variability and OLD across memory tasks. Poster presented at the Psychonomic Society meeting, Minneapolis, Minnesota.
- Hemmer, P. & Criss, A.H. (2012, July). The effect of continuous word frequency, context variability and OLD across memory tasks. Poster presented at the Annual Meeting of the Society for Mathematical Psychology, Columbus, OH
- Hemmer, P., Criss, A.H., Wyble, B. (2012, May). Assessing a neural basis for differentiation accounts of recognition memory. Poster presented at the Context and Episodic Memory Symposium, Bloomington, IN.

- 2011 Hemmer, P., Criss, A.H., & Wyble, B. (2011, November). Assessing a neural basis for differentiation accounts of recognition memory. Poster presented at the Psychonomic Society meeting. Seattle, WA.
Hemmer, P. & Steyvers, M. (2011, July). Estimating Individual Differences in a Rational Model of Memory. Talk given at the Annual Meeting of the Society for Mathematical Psychology, Boston
- 2010 Steyvers, M. & Hemmer, P. (presenter). (2010, November). The wisdom of crowds with informative priors. Abstract given at the Annual Meeting of the Psychonomic Society, St. Louis.
Hemmer, P., Steyvers, M. & Miller, B. (2010, July). The Wisdom of Crowds with Informative Priors. Poster presented at Annual Conference of the Cognitive Science Society, Portland, OR.
Hemmer, P. & Steyvers, M. (2010, July). Estimating Individual Differences in a Rational Model of Memory. Talk given at the Annual Meeting of the Society for Mathematical Psychology, Portland, OR.
Hemmer, P. & Steyvers, M. (2010, July). Estimating Individual Differences in a Rational Model of Memory. Talk given at the Annual Summer Interdisciplinary Conference, Bend, OR.
Hemmer, P. & Steyvers, M. (2010, May). The Influence of Prior Knowledge on Recall for Height. Poster given at the Context and Episodic Memory Symposium, Philadelphia, PA.
- 2009 *Annual Meeting of the Society for Mathematical Psychology, Amsterdam*
Annual Conference of the Cognitive Science Society, Amsterdam
Annual Summer Interdisciplinary Conference, Valle d'Aosta, Italy
- 2008 *Annual Meeting of the Cognitive Science Society, Washington DC*
Annual Summer Interdisciplinary Conference, Madonna Di Campiglio, Italy
Context and Episodic Memory Symposium, Tampa, Florida
- 2007 *Annual Summer Interdisciplinary Conference, Kalymnos, Greece.*
Annual meeting of the Society for Mathematical Psychology, Costa Mesa, Ca
- 2005 *Annual Meeting of the Psychonomic Society, Toronto.*

Invited talks

- 2013 *Rochester University, Brain & Cognitive Science Colloquium*
2012 *Rutgers University, What is Cognitive Science Talk Series*
2011 *Syracuse University, Colloquium*
Rutgers University. Colloquium
2010 *University of London, Birkbeck. Cognitive Science Seminar Series*

Panelist

- 2013 *Annual Meeting of the Cognitive Science Society, Berlin, Germany. Workshop: Professional Advancement Through real and Virtual International Collaboration.*