

MICHAEL S. PRATTE

CURRICULUM VITAE

Department of Psychology
Mississippi State University
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EDUCATION

- 2007-2010 Ph.D. in Psychology, University of Missouri, Columbia
Dissertation: *Assessing Single- and Dual-Process Accounts of Recognition Memory Using Hierarchical Bayesian Models*
- 2004-2007 M.A. in Psychology, University of Missouri, Columbia
Master's Thesis: *Subliminal Priming as a Task-Characteristic Artifact*
- 2000-2004 B.A. in Psychology, University of Missouri, Columbia
Honor's Thesis: *A Double Prime Test of Spreading Activation*

ACADEMIC APPOINTMENTS

- 2015 - Present Assistant Professor, Mississippi State University
- 2010 - 2015 Postdoctoral Fellow, Vanderbilt University, Adviser Frank Tong

FUNDING

- 2021 - 2024 NIH R15 Academic Research Enhancement Award (AREA)
National Institute of Mental Health. Role: PI; Direct Costs: \$272,541
Temporal Dynamics and Selection Mechanisms of Visual Memory Consolidation
- 2017 - 2020 NIH R15 Academic Research Enhancement Award (AREA)
National Institute of Mental Health. Role: PI; Direct Costs: \$300,000
Mechanisms and Neural Correlates of Iconic Memory Decay
- 2012 - 2015 NIH F32 Postdoctoral Research Service Award (NRSA)
National Eye Institute. Role: PI; Direct Costs: \$161,000
Continuously decoding visual perception and working memory

HONORS & AWARDS

- 2016 Fellow of the Psychonomic Society
2014 Bob Fox Award For Excellence In Postdoctoral Research
2008 Robert S. Daniel Teaching Fellow
2000 Max Mayers Undergraduate Research Award

PUBLICATIONS

- Green, M.G.¹ & **Pratte, M.S.** (2022). Local Motion Pooling is Continuous, Global Motion Perception is Discrete. *Journal of Experimental Psychology: Human Perception & Performance*, 48, 52–63.
- Pratte, M.S.** (2021). Eriksen Flanker Delta Plot Shapes Depend on the Stimulus. *Attention, Perception & Psychophysics*, 83, 685–699.
- Pratte, M.S.** (2020). Set Size Effects on Working Memory Precision Are Not Due to an Averaging of Slots. *Attention, Perception, & Psychophysics*, 82, 2937–2949.
- Pratte, M.S.** (2019). Swap Errors in Spatial Working Memory Are Guesses. *Psychonomic Bulletin and Review*, 26, 958–966.
- Pratte, M.S.** (2018). Iconic Memories Die a Sudden Death. *Psychological Science*, 29, 877–997.
- Pratte, M.S.**, Park, Y.P. , Rademaker, R.L. & Tong, F. (2017). Accounting for stimulus-specific variation in precision reveals a discrete capacity limit in visual working memory. *Journal of Experimental Psychology: Human Perception & Performance*, 43, 6–17.
- Pratte, M.S.** & Tong, F. (2017). Integrating Theoretical Models with Functional Neuroimaging. *Journal of Mathematical Psychology*, 76, 80–93.
- Rouder, J.N., Morey, R.D., & **Pratte, M.S.** (2016). Bayesian hierarchical models of cognition. In W.H. Batchelder, H. Colonius, E.N. Dzhafarov, & J. Myung (Eds.), *Cambridge handbooks in psychology. New handbook of mathematical psychology: Foundations and methodology* (p. 504–551). Cambridge University Press.
- Pratte, M.S.**, Sy, J.L., Swisher, J.D. & Tong, F. (2016). Radial bias is not necessary for orientation decoding. *NeuroImage*, 127, 23–33.
- van Bergen, R.S., Ma, W.J., **Pratte, M.S.** & Jehee, J.F.M. (2015). Sensory uncertainty decoded from visual cortex predicts behavior. *Nature Neuroscience*, 18, 1728–1730.
- Ling, S., **Pratte, M.S.** & Tong, F. (2015). Attention alters orientation processing in the human LGN. *Nature Neuroscience*, 18, 496–498.

¹student author

- Lorenc, E.S., **Pratte, M.S.**, Angeloni, C.F. & Tong, F. (2014). Expertise for upright faces improves the precision but not the capacity of visual working memory. *Attention, Perception & Psychophysics*. 76, 1975–1984.
- Pratte, M.S.** & Tong, F. (2014). Spatial specificity of working memory representations in the early visual cortex. *Journal of Vision*. 14, 1–12.
- Pratte, M.S.**, Ling, S., Swisher, J.D. & Tong, F. (2013). How attention extracts objects from noise. *Journal of Neurophysiology*. 110, 1346–1356.
- Pratte, M.S.** & Rouder, J.N. (2012). Assessing the dissociability of recollection and familiarity in recognition memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 38, 1591–1607.
- Tong, F. & **Pratte, M.S.** (2012). Decoding patterns of human brain activity. *Annual Review of Psychology*. 63, 483–509.
- Pratte, M.S.** & Rouder, J.N. (2011). Hierarchical single- and dual-process models of recognition memory. *Journal of Mathematical Psychology*. 55, 36–46
- Morey, R.D., Rouder, J.N., **Pratte, M.S.**, & Speckman, P.L. (2011). Using MCMC chain outputs to efficiently estimate Bayes factors. *Journal of Mathematical Psychology*. 55, 368–378.
- Thiele, J., **Pratte, M.S.**, Rouder, J.N. (2011). On perfect working-memory performance with large numbers of items. *Psychonomic Bulletin & Review*. 18, 958–963.
- Pratte, M.S.**, Rouder, J.N., & Morey, R.D. (2010). Separating mnemonic process from participant and item effects in the assessment of ROC asymmetries. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 36, 224–232.
- Pratte, M.S.**, Rouder, J.N., Morey, R.D., & Feng, C. (2010). Exploring the differences in distributional properties between Stroop and Simon effects using delta plots. *Attention, Perception, & Psychophysics*. 72, 2013–2025.
- Rouder, J.N., Yue, Y., Speckman, P.L., **Pratte, M.S.**, & Province, J.M. (2010). Gradual growth vs. shape invariance in perceptual decision making. *Psychological Review*. 117, 1267 – 1274.
- Rouder, J.N., **Pratte, M.S.**, & Morey, R.D. (2010). Latent mnemonic strengths are latent: A comment on Mickes, Wixted, and Wais (2007). *Psychonomic Bulletin & Review*. 17, 427 – 435.
- Pratte, M.S.** & Rouder, J.N. (2009). A task-difficulty artifact in subliminal priming. *Attention, Perception, & Psychophysics*, 71, 1276–1283.

- Rouder, J.N., Speckman, P.L., Steinley, D., **Pratte, M.S.**, & Morey, R.D. (2009). A bootstrap test of shape invariance across distributions. *Current methodological developments of statistics in the social sciences*. 159–174. (Wiley, New York).
- Morey, R.D., **Pratte, M.S.**, & Rouder, J.N. (2008). Problematic effects of aggregation in zROC analysis and a hierarchical modeling solution. *Journal of Mathematical Psychology*, 52, 376-388.
- Rouder, J.N., Morey, R.D., Cowan, N., Zwilling, C.E., Morey, C.C., & **Pratte, M.S.** (2008). An assessment of fixed-capacity models of visual working memory. *Proceedings of the National Academy of Science*, 105, 5975-5979.
- Speckman, P., Rouder, J.N., Morey, R.M., & **Pratte, M.S.** (2008). Delta plots and coherent distribution ordering. *American Statistician*, 62, 262-266.
- Rouder, J.N., Morey, R.D., Speckman, P., & **Pratte, M.S.** (2007). Detecting chance: A solution to the null sensitivity problem in subliminal priming. *Psychonomic Bulletin & Review* 14, 597 - 605.

PRESENTATIONS

- Green, M.L.¹ & Pratte, M.S. (2020). Access to Sensory Uncertainty in Global Motion Perception Depends On the Stimulus. Poster presented at the annual meeting of the Vision Sciences Society, Online Meeting due to Covid-19.
- Pratte, M.S. & Green, M.L.¹ (2019). Consolidating Multiple Items Into Visual Working Memory is a Parallel and Remarkably Fast Process. Poster presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Green, M.L.¹ & Pratte, M.S. (2019). Global motion identification is incredibly precise, but lowering coherence increases the probability of total identification failures. Talk presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- George, C.A.¹ & Pratte, M.S. (2019). Free-Floating Features in Visual Working Memory. Poster presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Pratte, M.S. (2019). A Single Factor Accounts for Variability in Iconic and Visual Working Memory. Talk presented at the Annual Meeting of the Psychonomic Society, Montreal, Quebec, Canada.
- Green, M. L.¹ & Pratte, M.S. (2018). The Capacity and Time Course of Visually Masked Information. Poster presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.

- Payne, A.E.¹, Eakin, D. K. & Pratte, M.S. (2018). Measuring and Manipulating False Recollections in Recognition Memory. Poster presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.
- George, C.¹ & Pratte, M.S. (2018). The Binding of Object Features and Locations in Visual Working Memory. Poster presented at the Psychonomics pre-conference on Object Perception, Visual Attention, and Visual Memory (OPAM), New Orleans, LA.
- Pratte, M.S. (2018). Precision Effects in Visual Working Memory Are Due to Retrieval Limitations, Not an Averaging of Slots. Talk presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.
- Pratte, M.S. (2018). Swap Errors in Spatial Working Memory are Informed Guesses, Not Binding Errors. Talk presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Bruning, A.L.¹ & Pratte, M.S. (2017). Decoding the Contents of Working Memory Using EEG Provides Evidence For the Sensory Recruitment Hypothesis. Poster presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Pratte, M.S. (2017). Theoretical and Statistical Interpretation of fMRI Multivariate Pattern Analysis. Invited talk presented at the annual meeting of the Organization for Human Brain Mapping, Vancouver, Canada.
- Pratte, M.S., Ling, S. & Tong, F. (2016). fMRI Pattern Similarity Analysis Reveals Oblique Effects Throughout The Human Visual Cortex. Poster presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Pratte, M.S. (2016). Iconic Memories Die a Sudden Death; They Do Not Gradually Fade Away. Talk presented at the Annual Meeting of the Psychonomic Society, Boston, MA.
- Pratte, M.S., Park, Y.P., Rademaker, R.R. & Tong, F. (2015). Accounting For Variable Precision In Visual Working Memory Reveals A Discrete Capacity Limit . Talk presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Pratte, M.S., & Tong, F. (2014). The radial bias is not necessary for orientation decoding. Paper presented at the annual meeting of the Vision Sciences Society, St. Petersburg, FL.
- Pratte, M.S. (2014). Using fMRI to study feature and object representations in the visual cortex. Invited talk, Arizona State University.
- Pratte, M.S. (2014). Using fMRI to study feature and object representations in the visual cortex. Invited talk, University of California, Irvine.
- Pratte, M.S., & Tong, F. (2013). FMRI pattern analysis reveals rotation-invariant shape representation in the lateral occipital complex. Poster presented at the Society for Neuroscience, San Diego, CA.

- Pratte, M.S., & Tong, F. (2013). Assessing tilt illusions in human visual cortex using fMRI and multivariate pattern analysis. Talk presented at the annual meeting of the Vision Sciences Society, Naples, FL.
- Pratte, M.S., Ling, S., Swisher, J., & Tong, F. (2012). Cortical mechanisms underlying the attentional selection of objects embedded in visual noise. Talk presented at the annual meeting of the Vision Sciences Society, Naples, FL.
- Pratte, M.S. (2009). Assessing single factor models of recognition memory. Invited talk, Indiana University.
- Pratte, M.S. & Rouder J.N. (2009). A single-factor model of recognition memory. Talk presented at the the Society for Mathematical Psychology, University of Amsterdam, Amsterdam.
- Pratte, M.S. & Rouder, J.N. (2007). A task-difficulty artifact in subliminal priming. Poster presented at the Annual Meeting of the Psychonomic Society, South Beach, CA.
- Pratte, M.S., Rouder, J.N., & Morey, R.D. (2007). A hierarchical model of signal detection. Talk presented at the Society for Mathematical Psychology, Irvine, CA.
- Pratte, M.S., & Rouder, J.N. (2004). A double prime test of spreading activation. Poster presented at the Annual Meeting of the American Psychological Society, Chicago, IL.

TEACHING EXPERIENCE

Quantitative Methods III (graduate), Mississippi State University
Perception & Attention (graduate), Mississippi State University
Professional Skills (graduate), Mississippi State University
Sensation & Perception (undergraduate), Mississippi State University
Cognitive Psychology (undergraduate), Mississippi State University
Statistical Methods in Psychology (undergraduate), University of Missouri

PROFESSIONAL SERVICE

Consulting Editor: Psychonomic Bulletin & Review (2010-2013)

Grant Reviewer: National Science Foundation

Ad Hoc Reviewer:

Psychological Review
JEP: General

Psychological Science
PNAS

Nature Communications
Journal of Neuroscience
NeuroImage
Cerebral Cortex
Journal of Cognitive Psychology
Psychological Bulletin & Review
JEP: Learning, Memory & Cognition
Journal of Memory & Language
Attention, Perception and Psychophysics

Journal of Vision
Human Brain Mapping
Journal of Mathematical Psychology
Computational Brain & Behavior
Vision
Translational Psychiatry
Psychological Research
Behavioral Research Methods
Scientific Reports
Acta Psychologica
Cognitive Neurodynamics
PLoS ONE