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DOB: October 25, 1980

Citizenship: USA

EDUCATION

Ph.D., Psychology, Behavior, Brain, and Cognition Program, Washington University, St. Louis, Missouri, 2010

M.A., Psychology, Behavior, Brain, and Cognition Program, Washington University, St. Louis, Missouri, 2007

B. S., Cum Laude, Psychology, Aquinas College, Grand Rapids, Michigan, 2003

EMPLOYMENT

Research Associate, Postle Lab, Department of Psychiatry, University of Wisconsin-Madison, 2013-present

Post-Doctoral Research Fellow, Craik and Buchsbaum Labs, Rotman Research Institute of Baycrest Centre for Geriatric Care and the Department of Psychology, University of Toronto, 2010-2013

Adjunct Professor, Washington University in St. Louis, 2009

PUBLICATIONS AND MANUSCRIPTS

WORKING MEMORY

Rose, N. S. (in press). Individual differences in working memory, secondary memory, and fluid intelligence: Evidence from the levels-of-processing span task. *Canadian Journal of Experimental Psychology*.

Rose, N. S. & Craik, F. I. M. (2012). A processing approach to the working memory/long-term memory distinction: Evidence from a levels-of-processing span task. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 38, 4, 1019-1029.

Rose, N. S., Olsen, R. K., Craik, F. I. M., & Rosenbaum, R. S. (2012). Working memory and amnesia: The role of stimulus novelty. *Neuropsychologia*, 50, 1, 11-18.

Rose, N. S., Myerson, J., Roediger, III., H.L., & Hale, S. (2010). Similarities and differences between working memory and long-term memory: Evidence from the levels-of-processing span task. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 2, 471-483.

Rose, N. S., Myerson, J., Sommers, M., & Hale, S. (2009). Are there age differences in the executive component of working memory? Evidence from domain-general interference effects. *Aging, Neuropsychology, and Cognition*, 16, 6, 633-653.

Hale, S., **Rose, N. S.**, Myerson, J., Strube, M. J., Sommers, M., Tye-Murray, N., & Spehar, B. (2011). The structure of working memory abilities across the adult lifespan. *Psychology and Aging*, 26, 1, 92-110.

Loaiza, V., McCabe, D., Youngblood, J., **Rose, N. S.**, & Myerson, J. (2011). The influence of levels of processing on recall from working memory and delayed recall tasks. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 37, 5, 1258-63.

Zinke, K., Zeintl, M., **Rose, N. S.**, Putzmann, J., Pydde, A., & Kliegel, M. (2013). Working memory training and transfer in older adults: Effects of age, baseline performance, and training gains. *Developmental Psychology*.

Rose, N. S., Buchsbaum, B. R., & Craik, F. I. M. (under review). Short-term retention of a single word relies on retrieval from long-term memory when both rehearsal and refreshing are disrupted.

Meltzer, J.A., **Rose, N.S.**, Panamsky, P., Leigh, R., & Links, K. (under review). Semantic and phonological contributions to immediate and delayed cued sentence recall.

Craik, F. I. M., **Rose, N.S.**, & Bialystok, E. (under review). The role of specific abilities in working memory performance.

Agarwal, P.K., Finley, J.R., **Rose, N.S.**, & Roediger, H.L., (under review). Benefits from retrieval practice are greater for students with low working memory than for students with high working memory.

PROSPECTIVE MEMORY

- Foster, E., **Rose, N. S.**, Rendell, P., & McDaniel, M. (2013). Prospective memory in Parkinson disease during a Virtual Week: Effects of both prospective and retrospective demands. *Neuropsychology*, 27, 2, 170-181.
- Kliegel, M., Altgassen, M., Hering, A., & **Rose, N. S.** (2011). A process-based approach to prospective memory impairment in Parkinson's disease. *Neuropsychologia*, 49, 8, 2166-77.
- Aberle, I., Rendell, P., **Rose, N. S.**, McDaniel, M., & Kliegel, M. (2010). The age-prospective memory paradox: Young adults may not give their best outside of the lab. *Developmental Psychology*, 46, 6, 1444-1453.
- Rose, N. S.**, Rendell, P. G., McDaniel, M. A., Aberle, I., & Kliegel, M. (2010). Age and individual differences in prospective memory during a "Virtual Week": The role of working memory, vigilance, task-regularity, and cue-focality. *Psychology and Aging*, 25, 3, 595-605.
- Rose, N. S.**, Luo, L., Bialystok, E., & Craik, F. I. M. (under review). Cognitive processes in complex planning: The breakfast task.
- Hering, A.; Rendell, P.; **Rose, N.**; Schnitzspahn, K.; & Kliegel, M. (under review). Prospective memory training in older adults and its relevance for successful aging

COGNITIVE AGING

- Craik, F.I.M. & **Rose, N.S.** (2012). Memory encoding and aging: A neurocognitive perspective. *Neuroscience & Biobehavioral Reviews*, 36, 1729-1739.
- Craik, F. I. M. & **Rose, N. S.** (2012). Training cognition: Parallels with physical fitness?. *Journal of Applied Research on Memory and Cognition*, 1, 1, 51-52.
- Reichman, W., Fiocco, A., & **Rose, N. S.** (2010). Exercising the brain to avoid cognitive decline: Examining the evidence. *Future Medicine: Aging Health*, 6, 5, 565-584.
- Reichman, W. & **Rose, N. S.** (2012). History and experience: The direction of Alzheimer's disease. *Menopause*, 19, 7, 724-734.
- Sommers, M., Hale, S., Myerson, J., **Rose, N. S.**, Tye-Murray, N., & Spehar, B. (2011). Spoken discourse comprehension across the adult lifespan. *Ear and Hearing*, 32, 6, 775-81.
- Tye-Murray, N., Sommers, M., Spehar, B., Myerson, J., Hale, S., & **Rose, N. S.** (2008). Auditory-visual discourse comprehension by older and young

adults in favorable and unfavorable conditions. *International Journal of Audiology*, 47, S103-S109.

CHAPTERS

Craik, F.I.M. & **Rose, N. S.** (in press). *Familiarity and Recollections: Interactions with Larry Jacoby*. Essays in honor of Larry Jacoby.

AWARDS

Heart and Stroke Foundation Centre for Stroke Recovery Stimulus Funding, 2012-2013

Canadian Institutes of Health Research – Institute of Aging, Travel Award for the Cognitive Aging Conference, 2012

Kick Start Grant, Centre for Brain Fitness: “Training Prospective Memory with the Virtual Week Video Game,” 2011

Jack and Rita Catherall Funds for Aging Research, 2011

Age+Prize Award Recognizing Excellence in Aging Research, Canadian Institutes of Health Research – Institute of Aging, 2011

Washington University Graduate Fellowship Award, School of Arts & Sciences, Department of Psychology, 2009-2010

Ruth L. Kirschstein National Research Service Fellowship Award, NIH grant T32 AG 00030-30, 2008-2009

Early Career Researcher Award, Cognitive Aging Conference – Down Under, Adelaide, Australia, 2007

Ruth L. Kirschstein National Research Service Fellowship Award, NIH grant T32 AG 00030-30, 2006-2007

Washington University Graduate Fellowship Award, School of Arts & Sciences, Department of Psychology, 2004-2005

Outstanding Student Award, Department of Psychology, Aquinas College, 2003

Academic All-American, Men’s Varsity Soccer, Aquinas College, 2003

INVITED TALKS

Baycrest Hospital Research Rounds, Toronto, Canada, 2013: "How is short-term memory different from long-term memory?"

Rotman Research Institute, fMRI Rounds, Toronto, Canada, 2013: "Multivoxel pattern analysis reveals similarities and differences in the neurocognitive processes that support working memory and long-term memory."

Lumos Labs, Inc. – San Francisco, USA, 2013: "Cognitive training: A theory, a review, and the future."

University of California – Davis, USA, Yonelinas/Ranganath Memory Meeting, 2011: "Recognition without awareness: Effects of context, age, and amnesia."

Royal Canadian Legion, Toronto, Canada, 2011: "Memory and Aging"

University of Toronto, Canada, Ebbinghaus Lecture Series, 2010: "A processing approach to the working memory/long-term memory distinction: Evidence from a levels-of-processing span task."

University of British Columbia, International Conference on Prospective Memory, Vancouver, Canada, 2010: "Prospective memory in young adults, healthy older adults and individuals with Parkinson's disease during a Virtual Week."

University of Michigan, USA, Psychology Department Forum, 2009: "Similarities and Differences between Working Memory and Long-Term Memory: Evidence from the Levels-of-Processing Span Task."

PRESENTATIONS AT NATIONAL & INTERNATIONAL MEETINGS

Rose, N. S., Craik, F. I. M. & Buchsbaum, B. (2013). Levels of Representations in Working Memory. Paper presentation at the Annual Meeting of the Society for Neuroscience, San Diego, CA.

Rose, N. S., Craik, F. I. M. & Buchsbaum, B. (2013). Similarities and Differences in the Cognitive Processes and Neural Substrates that Support Working Memory and Long-Term Memory. Poster presented at the 20th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

Rose, N. S., Craik, F. I. M. & Buchsbaum, B. (2012). Similarities and Differences in the Cognitive Processes and Neural Substrates that Support Working Memory and Long-Term Memory. Paper presented at the 53rd Annual Meeting of the Psychonomic Society, Minneapolis, MN.

Rose, NS, Craik, FIM, Hering, A, Rendell, PG, Moreno, S, Bidelman, GM, & Kliegel, M (2012). Cognitive and Neural Plasticity in Older Adults' Prospective Memory Following Training on the Virtual Week Computer Game. Abstract for poster presented at the 53rd Annual Meeting of the Psychonomic Society, Minneapolis, MN.

Rose, N. S., Butler, A., Nunes, L. & Roediger, H. L. III (2012). Variability and Testing During Learning: Redundant or Additive Effects? Abstract for

- poster presented at the 53rd Annual Meeting of the Psychonomic Society, Minneapolis, MN.
- Rose, NS, Craik, FIM, Hering, A, Rendell, PG, Moreno, S, Bidelman, GM, & Kliegel, M (2012). Training Older Adults' Prospective Memory with the Virtual Week Video Game. Abstract for poster presented at the 2012 Cognitive Aging Conference, Atlanta, GA.
- Hering, A., Rose, N.S., Craik, F.I.M., Rendell, P.G., Moreno, S., Bidelman, G.M., & Kliegel, M. (2012). Differential predictors of prospective memory performance in old age: Laboratory and naturalistic tasks are associated with different cognitive processes. Paper presented at the Cognitive Aging Conference, Atlanta, Georgia.
- Shelton, J., Scullin, M., Lee, J., Rose, N.S., Rendell, P., & McDaniel, M. (2012). Implementation intentions boost prospective memory in healthy and very mildly demented older adults. Paper presented at the Cognitive Aging Conference, Atlanta, Georgia.
- Rose, N. S., Olsen, R. K., Craik, F. I. M., & Rosenbaum, R. S. (2012). Working Memory and Amnesia: The Role of Stimulus Familiarity. Abstract for poster presentation, Cognitive Neuroscience Society Meeting, Chicago, IL.
- Rose, N. S. (2012). "Prospective Memory during a Virtual Week in Healthy Aging, Parkinson's Disease, and Alzheimer's Disease" for National Alzheimer's Awareness Month, Baycrest Hospital, Toronto, ON
- Rose, N. S., Craik, F. I. M. & Buchsbaum, B. (2011). Similarities and Differences between Working Memory and Long-Term Memory: Evidence from Levels-of-Processing Effects on Working Memory. Paper presented at the 52nd Annual Meeting of the Psychonomic Society, Seattle, WA.
- Craik, F. I. M., Rose, N. S., & Gopie, N. (2011). Reducing encoding resources paradoxically boosts memory on an explicit test without awareness. Paper presented at the 52nd Annual Meeting of the Psychonomic Society, Seattle, WA.
- Rose, N. S., Olsen, R. K., Rosenbaum, R. S., & Craik, F. I. M. (2011). Working Memory and Amnesia: The Role of Stimulus Familiarity. Abstract for poster presentation, International Conference on Memory, York, UK.
- Rose, N. S., Olsen, R. K., Rosenbaum, R. S., & Craik, F. I. M. (2011). Amnesia impairs maintenance of a single face for just one second, unless it's Paris Hilton. Abstract for poster presentation, Cognitive Neuroscience Society Meeting, San Francisco, CA.
- Gopie, N., Rose, N. S., & Craik, F. I. M. (2010). Reducing encoding resources paradoxically boosts memory on an explicit test without awareness. Abstract for poster presentation, 51st Annual Meeting of the Psychonomic Society, St. Louis, MO.
- Rose, N. S., Roediger, H. L. III, & Myerson, J. (2010). A processing approach to the working memory/long-term memory distinction: Evidence from a

- levels-of-processing span task. Abstract for poster presentation, 51st Annual Meeting of the Psychonomic Society, St. Louis, MO.
- Agarwal, P., Rose, N. S., & Roediger, H. L. III. (2010). Testing levels the playing field for students with lower working memory capacity. Abstract for poster presentation, 51st Annual Meeting of the Psychonomic Society, St. Louis, MO.
- Rose, N. S., Foster, E. T., McDaniel, M. A., & Rendell, P. G. (2010). Prospective memory in Parkinson disease and healthy aging during a Virtual Week. Abstract for poster presentation, Cognitive Aging Conference, Atlanta, GA.
- Tamez, E., Hale, S. Myerson, J., Rose, N., Sommers, M., Tye-Murray, N., & Spehar, B. (2010). Predicting fluid intelligence and listening comprehension across the adult lifespan. Abstract for poster presentation, Cognitive Aging Conference, Atlanta, GA.
- Rose, N. S., Foster, E. T., McDaniel, M. A., & Rendell, P. G. (2010). Prospective memory in Parkinson disease and healthy aging during a Virtual Week. *Frontiers in Human Neuroscience*. Conference Abstract: The 20th Annual Rotman Research Institute Conference, The Frontal Lobes.
- Rose, N.S., McDaniel, M.A., Rendell, P. (2009). Age and individual differences in prospective memory during a “Virtual Week”. Abstract for poster presentation, The 21st Annual Convention of the Association for Psychological Science, San Francisco, California.
- Rose, N.S., Hale, S. Myerson, J., Sommers, M., Tye-Murray, N., & Spehar, B. (2009). The structure of working memory abilities in younger and older adults: Age invariance regardless of scoring method. Abstract for poster presentation, The 19th Annual Rotman Research Institute Conference, Toronto, Ontario.
- Rose, N. S., Myerson, J., Roediger, H.L., III., & Hale, S. (2008). Working memory, secondary memory, and long-term memory: Insights from the levels-of-processing span task. Paper presented at the 49th Annual Meeting of the Psychonomic Society, Chicago, IL.
- Hale, S. Myerson, J., Sommers, M., Tye-Murray, N., Spehar, B. & Rose, N.S. (2008). Modeling Spoken Discourse Comprehension across the Adult Lifespan. Abstract for poster presentation, 49th Annual Meeting of the Psychonomic Society, Chicago, IL.
- Rose, N. S., Myerson, J., Roediger, H.L., III., & Hale, S. (2008). Working memory, secondary memory, and long-term memory: Insights from the levels-of-processing span task. Paper presented at the Show-Me Mental State Conference. University of Missouri.
- Rose, N. S., Myerson, J., Roediger, H.L., III., & Hale, S. (2008). Does Depth of Processing Affect Memory for Items From Working Memory Tasks? Paper presented at the 20th Annual Convention of the Association for Psychological Science, Chicago, Illinois.

- Rose, N.S., McDaniel, M.A., Rendell, P. (2008). Age and Individual Differences in Prospective Memory During a “Virtual Week”: The Role Working Memory, Vigilance, Task-Habituation, and Cue-Focality. Abstract for poster presentation, Cognitive Aging Conference, Atlanta, Georgia.
- Rose, N.S., Hale, S. Myerson, J., Sommers, M., Tye-Murray, N., & Spehar, B. (2008). Working Memory Ability across the Adult Life-Span. Abstract for poster presentation, Cognitive Aging Conference, Atlanta, Georgia.
- Hale, S. Myerson, J., Sommers, M., Tye-Murray, N., Spehar, B. & Rose, N.S., (2008). Spoken Discourse Comprehension across the Adult Lifespan. Abstract for poster presentation, Cognitive Aging Conference, Atlanta, Georgia.
- Rose, N.S., McDaniel, M.A., Rendell, P. (2007). Prospective Memory in a Virtual Week. Paper presented at the Cognitive Aging Conference, Adelaide, South Australia.
- Rose, N. S., Myerson, J., Roediger, H.L., III., & Hale, S. (2007). Depth of Processing Differentially Affects Working Memory and Long-Term Memory. Abstract for poster presentation, 48th Annual Meeting of the Psychonomic Society, Long Beach, California.
- Rose, N.S., Hale, S. Myerson, J., Sommers, M., Tye-Murray, N., & Spehar, B. (2006). Development of the LISN Test for Assessing Spoken Discourse Comprehension across the Adult Life-Span. Paper presented at the Auditory Perception and Cognition for Action Meeting, Houston, Texas.
- Rose, N. S., Myerson, J., Sommers, M., & Hale, S. (2006). Interference effects in working memory: Differences due to age and task complexity. Abstract for poster presentation, Cognitive Aging Conference, Atlanta, Georgia.
- Rose, N. S., Myerson, J., Sommers, M., & Hale, S. (2005). The effects of domain specific rehearsal suppression on working memory. Paper presented at the Show-Me Conference, University of Missouri.

TEACHING EXPERIENCE

Adjunct Professor, Psychological Statistics, Washington University in St. Louis, Summer 2009

Lecturer, Psychology of Aging, Spring 2009

Teaching Assistant, Experimental Psychology, Spring 2008

Lecturer, Psychology of Aging, Spring 2008

Teaching Assistant, Social Gerontology, Fall 2007

SUPERVISION

Sebastian Joeffry, External Examiner of dissertation submitted for PhD in Clinical Neuropsychology and Clinical Psychology, University of Queensland

Buchsbaum Lab Research Assistants: Sabrina Lemire-Rodger, Ashley Bondad, Summer 2011-present

Alexandra Hering, visiting Ph.D. student, University of Geneva, Switzerland, May 2010-present

Craik Lab Research Assistants: Karen Lau, Jenna Ware, Julia Czyzo, Darya Gaydukevych, May 2010 - present

Ludmila Nunes, visiting Ph.D. student, University of Lisbon, Portugal, September 2009 – May 2010

Hale/Myerson Lab Research Assistants: Kalin Guebert, Danielle Alvarez, Denise Rose, Matt Robbins, 2006 – 2010

Sommers Lab Research Assistants: Linden Weiswerda, Molly Ruben, Diana Smith, 2005 – 2007

RESEARCH EXPERIENCE

ERP Bootcamp with Dr. Steven Luck, University of California–Davis, 2013

Post-Doctoral Fellow with Dr. Fergus Craik and Dr. Bradley Buchsbaum, The Rotman Research Institute of Baycrest Centre for Geriatric Care and University of Toronto, Toronto, Ontario, 2010-2013

Project Director, Listening Comprehension across the Adult Lifespan, NIA grant AG022448, Principal Investigator: Sandra Hale, Fall 2005-2006

Research Assistant with Mitchell Sommers, Speech and Hearing Lab, Psychology Department, Washington University in St. Louis, 2003-2004

Research Assistant with David Balota, Cognitive Lab, Psychology Department, Washington University in St. Louis, 2003-2004

Research Assistant with John Stern, Psychophysiology Lab, Psychology Department, Washington University in St. Louis, 2003-2004

RESEARCH SKILLS

Programming for stimulus presentation and data collection: E-prime,
MATLAB

Data analysis: MATLAB, R, AFNI, PLS, MVPA, LISREL, SPSS

REVIEWERSHIP

National Science Foundation, USA

Cerebral Cortex

Journal of Experimental Psychology: Learning, Memory, and Cognition

Journal of Experimental Psychology: Human Perception and Performance

Journal of Memory and Language

Psychology and Aging

Aging, Neuropsychology and Cognition

Journal of Clinical and Experimental Neuropsychology

Psychonomic Bulletin and Review

Memory & Cognition

Quarterly Journal of Experimental Psychology

Applied Memory Research

Journal of Cognitive Psychology

The European Journal of Cognitive Psychology

Canadian Journal of Experimental Psychology

PROFESSIONAL MEMBERSHIPS

Cognitive Neuroscience Society, 2009-present

Association for Psychological Science, 2009-present

Psychonomic Society, 2010-present