

Nash Unsworth

Curriculum Vitae—July 2014

Personal Information

Department of Psychology

University of Oregon

Eugene, OR 97403

Email: nashu@uoregon.edu

Education

Ph.D., 2006 Georgia Institute of Technology, Atlanta, Georgia

Cognitive and Brain Sciences/Experimental Psychology

Minor: Quantitative

M.S., 2003 Georgia Institute of Technology, Atlanta, Georgia

Cognitive and Brain Sciences/Experimental Psychology

B.S., 2001 Idaho State University, Pocatello, Idaho

Major: Psychology

Minor: Sociology

Positions

2012-present Associate Professor, University of Oregon

2009-2012 Assistant Professor, University of Oregon

2006-2010 Assistant Professor, University of Georgia

2006 Instructor, Emory University

2004-2006 Graduate Student Instructor, Georgia Institute of Technology

Publications (in reverse chronological order; * denotes papers co-authored with my graduate students)

Peer-Reviewed Publications

64. Unsworth, N. (in press). The Influence of Encoding Manipulations on the Dynamics of Free Recall. *Memory & Cognition*.
63. *Unsworth, N., & McMillan, B.D. (2014). Similarities and differences between mind-wandering and external distraction: A latent variable analysis of lapses of attention and their relation to cognitive abilities. *Acta Psychologica*, 150, 14-25.
62. *Unsworth, N., & McMillan, B.D. (2014). Fluctuations in pre-trial attentional state and their influence on goal neglect. *Consciousness and Cognition*, 26, 90-96.
61. Unsworth, N, Fukuda, K., Awh, E., & Vogel, E.K. (2014). Working memory and fluid intelligence: Capacity, attention control, and secondary memory. *Cognitive Psychology*, 71, 1-26.
60. *Unsworth, N., & McMillan, B.D. (2014). Trial-to-trial fluctuations in attentional state and their relation to intelligence. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 40, 882-891.
59. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2014). Strategic search from long-term memory: An examination of semantic and autobiographical recall. *Memory*, 22, 687-699.
58. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2013). Focusing the search: Proactive and retroactive interference and the dynamics of free recall. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 39, 1742-1756.

57. *Unsworth, N., McMillan, B.D., Brewer, G.A., & Spillers, G.J. (2013). Individual differences in everyday retrospective memory failures. *Journal of Applied Research in Memory and Cognition*, 2, 7-13.
56. McVay, J.C., Unsworth, N., McMillan, B.D., & Kane, M.J. (2013). Working memory capacity does not always support future-oriented mind wandering. *Canadian Journal of Experimental Psychology*, 67, 41-50.
55. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2013). Working memory capacity and retrieval from long-term memory: The role of controlled search. *Memory & Cognition*, 41, 242-254.
54. *Unsworth, N., & McMillan, B.D. (2013). Mind wandering and reading comprehension: Examining the roles of working memory capacity, interest, motivation, and topic experience. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 39, 832-842.
53. Redick, T. S., Unsworth, N., Kelly, A. J., & Engle, R. W. (2012). Faster, smarter? Working memory capacity and perceptual speed in relation to fluid intelligence. *Journal of Cognitive Psychology*, 24, 844-854.
52. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2012). Working memory capacity and retrieval limitations from long-term memory: An examination of differences in accessibility. *Quarterly Journal of Experimental Psychology*, 65, 2397-2410.
51. Li, Q., Amlung, M.T., Valtcheva, M., Camchong, J., Austin, B.P., Dyckman, K.A., Unsworth, N., Clementz, B.A., & McDowell, J.E. (2012). Evidence from cluster analysis for differentiation of antisaccade performance groups based on

- speed/accuracy trade-offs. *International Journal of Psychophysiology*, 85, 274-277.
50. * Unsworth, N., McMillan, B.D., Brewer, G.A., & Spillers, G.J. (2012).
Everyday attention failures: An individual differences investigation. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 38, 1765-1772.
 49. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2012). Variation in Cognitive Failures: An Individual Differences Investigation of Everyday Attention and Memory Failures. *Journal of Memory & Language*, 67, 1-16.
 48. *Brewer, G.A., & Unsworth, N. (2012). Individual differences in the effects of retrieval from long-term memory. *Journal of Memory & Language*, 66, 407-415.
 47. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2012). The role of working memory capacity in autobiographical retrieval: Individual differences in strategic search. *Memory*, 20, 167-176.
 46. Redick, T.S., Broadway, J.M., Meier, M.E., Kuriakose, P.S., Unsworth, N., Kane, M.J., & Engle, R.W. (2012). Measuring working memory capacity with automated complex span tasks. *European Journal of Psychological Assessment*, 28, 164-171.
 45. *Unsworth, N., Redick, T.S., Spillers, G.J., & Brewer, G.A. (2012). Variation in working memory capacity and cognitive control: Goal maintenance and micro-adjustments of control. *Quarterly Journal of Experimental Psychology*, 65, 326-355.
 44. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2012). Evidence for noisy

- contextual search: Examining the dynamics of list-before-last recall. *Memory*, 20, 1-13.
43. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2012). Dynamics of context-dependent recall: An examination of internal and external context change. *Journal of Memory and Language*, 66, 1-16.
 42. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2011). Variation in working memory capacity and episodic memory: Examining the importance of encoding specificity. *Psychonomic Bulletin & Review*, 18, 1113-1118.
 41. *Spillers, G.J. & Unsworth, N. (2011). Variation in Working Memory Capacity and Temporal-Contextual Retrieval from Episodic Memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 37, 1532-1539.
 40. Siddiqui, A.P. & Unsworth, N. (2011). Investigating the role of emotion during the search process in free recall. *Memory & Cognition*, 39, 1387-1400.
 39. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2011). Factors that influence search termination decisions in free recall: An examination of response type and confidence. *Acta Psychologica*, 138, 19-29.
 38. *Brewer, G.A., Spillers, G.J., McMillan, B.D., & Unsworth, N. (2011). Extensive performance on the antisaccade task does not deplete executive-control. *Psychonomic Bulletin & Review*, 18, 923-929.
 37. Faraco, C.C., Unsworth, N., Langley, J., Terry, J.D., Li, K., Zhang, D., Liu, T., Miller, L.S. (2011). Complex span tasks and hippocampal recruitment during working memory. *NeuroImage*, 55, 773-787.
 36. *Unsworth, N., Spillers, G.J., Brewer, G.A., & McMillan, B.D. (2011). Attention

- Control and the Antisaccade Task: A Response Time Distribution Analysis. *Acta Psychologica*, 137, 90-100.
35. *Spillers, G.J. & Unsworth, N. (2011). Are the costs of directed forgetting due to failures of sampling or recovery? Exploring the dynamics of recall in list-method directed forgetting. *Memory & Cognition*, 39, 403-411.
34. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2011). Variation in verbal fluency: A latent variable analysis of switching, clustering, and overall performance. *Quarterly Journal of Experimental Psychology*, 64, 447-466.
33. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2011). Individual differences in working memory capacity and forgetting over both the short and the long-term: An application of the Population Dilution model. *Journal of Cognitive Psychology*, 23, 243-255.
32. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2011). Inter- and Intra individual variation in immediate free recall: An examination of serial position functions and recall initiation strategies. *Memory*, 19, 67-82.
31. *Unsworth, N., & Spillers, G.J. (2010). Working memory capacity: Attention, Memory, or Both? A direct test of the dual-component model. *Journal of Memory and Language*, 62, 392-406.
30. Unsworth, N. (2010). On the division of working memory and long-term memory and their relation to intelligence: A latent variable analysis. *Acta Psychologica*, 134, 16-28.
29. *Unsworth, N., & Spillers, G.J. (2010). Variation in working memory capacity and episodic recall: The contributions of strategic encoding and contextual-

- retrieval. *Psychonomic Bulletin & Review*, 17, 200-205.
28. *Brewer, G.A., Knight, J.B., Marsh, R.L. & Unsworth, N. (2010). Individual differences in event-based prospective memory: Evidence for multiple processes supporting cue detection. *Memory & Cognition*, 38, 304-311.
27. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2010). Understanding the dynamics of correct and error responses in free recall: Evidence from externalized free recall. *Memory & Cognition*, 38, 419-430.
26. *Unsworth, N., & Brewer, G.A. (2010). Variation in working memory capacity and intrusions: Differences in generation or editing? *European Journal of Cognitive Psychology*, 22, 990-1000.
25. Unsworth, N. (2010). Interference control, working memory capacity, and cognitive abilities: A latent variable analysis. *Intelligence*, 38, 255-267.
24. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2010). The contributions of primary and secondary memory to working memory capacity: An individual differences analysis of immediate free recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 240-247.
23. *Unsworth, N., & Brewer, G.A. (2010). Individual differences in false recall: A latent variable analysis. *Journal of Memory & Language*, 62, 19-34.
22. Unsworth, N., Redick, T.S., Lakey, C.E., Young, D.L. (2010). Lapses in sustained attention and their relation to executive and fluid abilities: An individual differences investigation. *Intelligence*, 38, 111-122.
21. Gibson, B.S., Gondoli, D.M., Flies, A.C., Dobrzanski, B.A., & Unsworth, N. (2010). Application of the dual-component model of working memory to ADHD. *Child*

Neuropsychology, 16, 60-79.

20. *Unsworth, N., & Brewer, G.A. (2009). Examining the Relationships Among Item Recognition, Source Recognition, and Recall from an Individual Differences Perspective. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 35*, 1578-1585.
19. *Unsworth, N., Spillers, G.J., & Brewer, G.A. (2009). Examining the relations among working memory capacity, attention control, and fluid intelligence from a dual-component framework. *Psychology Science Quarterly, 51*, 388-402.
18. *Unsworth, N., Brewer, G.A., & Spillers, G.J. (2009). There's more to the working memory-fluid intelligence relationship than just secondary memory. *Psychonomic Bulletin & Review, 16*, 931-937.
17. Unsworth, N., Miller, J.D., Lakey, C.E., Young, D.L., Meeks, J.T., Campbell, W.K., & Goodie, A.S. (2009). Exploring the relations among executive functions, fluid intelligence, and personality. *Journal of Individual Differences, 30*, 194-200.
16. Unsworth, N., Redick, T.S., Heitz, R.P., Broadway, J., & Engle, R.W. (2009). Complex working memory span tasks and higher-order cognition: A latent variable analysis of the relationship between processing and storage. *Memory, 17*, 635-654.
15. Unsworth, N. (2009). Variation in working memory capacity, fluid intelligence, and episodic recall: A latent variable examination of differences in the dynamics of free recall. *Memory & Cognition, 37*, 837-849.
14. Unsworth, N. (2009). Examining variation in working memory capacity and retrieval in cued recall. *Memory, 17*, 386-396.

13. Unsworth, N. (2009). Individual differences in self-initiated processing at encoding and retrieval: A latent variable analysis. *Quarterly Journal of Experimental Psychology*, 62, 257-266.
12. Unsworth, N., Heitz, R.P., & Parks, N.A. (2008). The importance of temporal distinctiveness for forgetting over the short-term. *Psychological Science*, 19, 1078-1081.
11. Unsworth, N. (2008). Exploring the retrieval dynamics of delayed and final free recall: Further evidence for temporal-contextual search. *Journal of Memory and Language*, 59, 223-236.
10. Unsworth, N., & Engle, R.W. (2008). Speed and accuracy of accessing information in working memory: An individual differences investigation of focus switching. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 34, 616-630.
9. Unsworth, N. (2007) Individual differences in working memory capacity and episodic retrieval: Examining the dynamics of delayed and continuous distractor free recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 33, 1020-1034.
8. Unsworth N., & Engle, R.W. (2007). On the division of short-term and working memory: An examination of simple and complex spans and their relation to higher-order abilities. *Psychological Bulletin*, 133, 1038-1066.
7. Unsworth, N., & Engle, R.W. (2007). The nature of individual differences in working memory capacity: Active maintenance in primary memory and controlled search from secondary memory. *Psychological Review*, 114, 104-132.

6. Unsworth, N., & Engle, R.W. (2006). A temporal-contextual retrieval account of complex span: An analysis of errors. *Journal of Memory and Language*, 54, 346-362.
5. Unsworth, N., & Engle, R.W. (2006). Simple and complex memory spans and their relation to fluid abilities: Evidence from list-length effects. *Journal of Memory and Language*, 54, 68-80.
4. Unsworth, N., & Engle, R.W. (2005). Working memory capacity and fluid abilities: Examining the correlation between operation span and raven. *Intelligence*, 33, 67-81.
3. Unsworth, N., & Engle, R.W. (2005) Individual differences in working memory capacity and learning: Evidence from the serial reaction time task. *Memory & Cognition*, 33, 213-220.
2. Unsworth, N., Heitz, R.P., Schrock, J.C., & Engle, R.W. (2005) An automated version of the operation span task. *Behavior Research Methods*, 37, 498-505.
1. Unsworth, N., Schrock, J.C., & Engle, R.W. (2004) Working memory capacity and the antisaccade task: Individual differences in voluntary saccade control. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 30, 1302-1321.

Book Chapters and Encyclopedia Entries

5. Unsworth, N. (in press). Working memory capacity and reasoning. In A. Feeney & V. Thompson (Eds.), *Reasoning as Memory*.
4. *Spillers, G. J., Brewer, G. A., & Unsworth, N. (2012). Working memory and

- information processing. *Encyclopedia of the Sciences of Learning*.
3. Unsworth, N., & Engle, R.W. (2007). Individual differences in working memory capacity and retrieval: A cue-dependent search approach. In James S. Nairne (Ed). *The foundations of remembering: Essays in honor of Henry L. Roedgier III*. NY: Psychology Press.
 2. Heitz, R.P., Unsworth, N., & Engle, R.W. (2005) Working memory capacity, attention, and fluid intelligence. In O. Wilhelm & R.W. Engle (Eds.) *Understanding and measuring intelligence*. NY: Sage.
 1. Unsworth, N., Heitz, R.P., & Engle, R.W. (2005). Working memory capacity in hot and cold cognition. In R.W. Engle, G. Sedek, U. Hecker, & D.N. McIntosh (Eds.) *Cognitive limitations in aging and psychopathology: Attention, working memory, and executive functions*. NY: Oxford University Press.

Submitted Manuscripts

- Unsworth, N. *Examining the dynamics of free and serial recall: A comparison of sampling with and without replacement models*.
- Unsworth, N. & Robison, M.K. *Individual differences in the allocation of attention to items in working memory: Evidence from pupillometry*.

Selected Talks and Presentations

- Unsworth, N., Schrock, J.C., Heitz, R.P., & Engle, R.W. (2003, June). An automatic version of the operation span. Poster presented at the annual meeting of the American Psychological Society, Atlanta, GA.

Unsworth, N. (2003, March). On the correlation between Ospan and Ravens: A post-hoc analysis. Talk given at weekly Cognitive Seminar at Georgia Institute of Technology.

Unsworth, N. (2003, October). Working memory capacity and speed: Some preliminary results. Talk given at weekly Cognitive Seminar at Georgia Institute of Technology.

Unsworth, N. & Engle, R.W. (2004, May). Verbal working and short-term memory spans and fluid abilities: Evidence from list-length effects. Talk given at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Unsworth, N. & Engle, R.W. (2004, August). Working memory capacity and learning in the serial reaction time task. Poster presented at the annual meeting of the American Psychological Association, Honolulu, HI.

Unsworth, N., Heitz, R.P., Schrock, J.C., & Engle, R.W. (2004, November). An automated version of the operation span task. Talk given at the annual meeting of SCiP, Minneapolis, MN.

Unsworth, N., & Engle, R.W. (2004, November). Individual differences in WM capacity: size of focus or retrieval? Talk given at the annual meeting of the Psychonomic Society, Minneapolis, MN.

Unsworth, N. (2005, February). Individual differences in WM capacity: size of focus or retrieval? Talk given at weekly Cognitive Seminar at Georgia Institute of Technology.

Unsworth, N. (2005, October). Working memory capacity and episodic retrieval: Examining the dynamics of free recall. Talk given at weekly Cognitive Seminar

- at Georgia Institute of Technology.
- Bunting, M., Doughty, C., Campbell, S.G., & Unsworth, N. (November, 2008). An evaluation of scoring methods for verbal working memory measures. Poster presented at the annual meeting of the Psychonomic Society, Chicago, IL.
- Brewer, G. A., Knight, J. B., Spillers, G. J., Unsworth, N., & Marsh, R. L. (November, 2009). Individual Differences in Event-Based Prospective Memory. Poster presented at the annual meeting of the Psychonomic Society, Boston, MA.
- Brewer, G. A., Spillers, G. J., Unsworth, N. (March, 2009). Primary Memory and Secondary Memory Jointly Determine Working Memory Capacity. Poster presented at the annual meetings of the American Psychological Society, San Francisco, CA.
- Redick, T.S., Hambrick, D.Z., Kane, M.J., Unsworth, N., Shipstead, Z.M., & Engle, R.W. (November, 2010). WMC: Weighing up multitasking and cognition. Talk presented at the annual meeting of the Psychonomic Society, St. Louis, MO.
- Brewer, G. A., Spillers, G. J., Unsworth, N. (April, 2010). Working Memory, Interference, and the Testing Effect. Poster presented at the Context and Episodic Memory Conference, Philadelphia, PA.
- Spillers, G.J., Brewer, G.A., & Unsworth, N. (April 2010). Individual differences in working memory capacity and variation in the temporal-contextual dynamics of retrieval in free recall. Poster presented at the annual Context and Episodic Memory Symposium 2010, Philadelphia, PA.

Teaching Experience

Undergraduate Cognitive Psychology, University of Oregon

Graduate Seminar on Attentional Failures, University of Oregon

Undergraduate Seminar on Intelligence, University of Oregon

Graduate Seminar on Individual Differences in Working Memory, University of Oregon

Undergraduate Human Learning and Memory, University of Oregon

Graduate Seminar on Cognitive Neuroscience of Memory, University of Georgia

Graduate Seminar on the Nature of Working Memory, University of Georgia

Graduate Cognitive Psychology, University of Georgia

Undergraduate Cognitive Psychology, University of Georgia

Undergraduate Human Learning and Memory, Emory University

Undergraduate Introductory Psychology, Georgia Institute of Technology

Professional Affiliations

2002 - present Midwestern Psychological Association

2003 – present American Psychological Society

2004 – present American Psychological Association

2006 – present Psychonomic Society, Member

Funded Research Grants

Co-P.I: Understanding the Role of Working Memory Capacity in Complex Task

Performance to Improve Selection, Classification, and Training (2009-2011),

ONR. Subcontract Costs: \$90, 945

Co-Investigator: On the Distinction Between Number and Resolution in Visual Working
Memory (2009-2010). RO1 NIMH. Total costs: \$149,493

Consultant: Neural Noise and Cognitive Control in Schizophrenia (2011-2014), RO1
NIH. Consultant costs: \$7,200

Honors and Distinctions

New Investigator Award, American Psychological Association, Division 3, for an article
appearing in *Journal of Experimental Psychology: Learning, Memory, &
Cognition*, 2008

Graduate Teacher Award, Department of Psychology, University of Georgia,
2009

Graduate Teacher Award, Department of Psychology, University of Georgia,
2010

Michael Posner Faculty Fund Award, Department of Psychology, University of Oregon,
2011

Association for Psychological Sciences "Rising Star", 2011

Outstanding Early Career Award from the Psychonomic Society, 2012

Associate Editor

Cognitive Psychology, 2014-present

Journal of Experimental Psychology: Learning, Memory, & Cognition, 2014-present

Consulting Editor

Journal of Memory and Language, 2009-present

Journal of Experimental Psychology: Learning, Memory, & Cognition, 2012-2014

Psychonomic Bulletin & Review, 2011-present

Memory & Cognition 2013-present

Ad hoc reviewer

Grant Proposals: Economic & Social Research Council (2), NSF (7), Israeli Science Foundation, University of Missouri, Swiss National Science Foundation

Journal Manuscripts: Acta Psychologica; Aging, Neuropsychology and Cognition; American Journal of Psychology; Behavior Research Methods; Brain & Cognition; British Journal of Psychology; Child Development; Cognitive Psychology; Cognitive Science; Consciousness and Cognition; Current Directions in Psychological Science; Developmental Science; European Journal of Aging; European Journal of Cognitive Psychology; Experimental Brain Research; Experimental Psychology; Intelligence; Irish Journal of Psychology; Journal of Applied Research in Memory and Cognition; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory, & Cognition; Journal of Experimental Psychology: Applied; Journal of the American Medical Association; Journal of Experimental Child Psychology; Journal of Eye Movement Research; Journal of Memory and Language; Learning & Individual Differences; Learning & Memory; Memory; Memory & Cognition; Neuropsychology; Perspectives on Psychological Science; Personality and Individual Differences; Psychological Review; Psychological Reports;

Psychological Research; Psychological Science; Psychology & Aging; Psychonomic Bulletin & Review; PLoS ONE; Quarterly Journal of Experimental Psychology; Swiss Journal of Psychology; Thinking & Reasoning; Trends in Cognitive Science

Departmental Service

Undergraduate Education committee, University of Oregon

Colloquium committee, University of Oregon

Attneave Lecture Series committee, University of Oregon

Graduate Admissions committee, University of Oregon

Technology committee, University of Georgia

University-wide Fellowship committee, University of Georgia

Committee for 2008 excellence in research by a graduate student award, University of Georgia

Student Committees

Yfat Kessel Dissertation committee (2007), University of Georgia

Ben Austins MS committee (2008), University of Georgia

Anne Gao Dissertation committee (2008), University of Georgia

Arlo Clark-Foos Comps committee (2008), University of Georgia

Thad Meeks Comps committee (2008), University of Georgia

John Best MS committee (2008), University of Georgia

Cesar Koila Comps and MS committee (AI) (2008), University of Georgia

Karan Sharma Comps and MS committee (AI) (2008), University of Georgia

Arlo Clark-Foos Dissertation committee (2008), University of Georgia

Thad Meeks Dissertation committee (2008), University of Georgia

Devin Smith Honors Thesis committee (2009), University of Georgia

Gene Brewer Comps committee (2009; Chair), University of Georgia

Michael Amlung MS committee (2009), University of Georgia

Erica Littler MS committee (2009), University of Georgia

Kelly Storm Comps committee (Computer Science) (2010), University of Georgia

Gene Brewer Dissertation (2010, Chair), University of Georgia

Greg Spillers Masters (2010; Chair), University of Georgia

Ben Austin Dissertation committee (2010), University of Georgia

Jason Isabel First Year Project committee (2011), University of Oregon

Keisuke Fukuda Comps committee (2011), University of Oregon

Eddie Ester Dissertation committee (2011), University of Oregon

Keisuke Fukuda Dissertation committee (2012), University of Oregon

Brittany McMillan Masters (2013; Chair)

Elizabeth Minton Dissertation (2014; Marketing Department), University of Oregon