Jason R. Finley July 30, 2014

Department of Psychology
Washington University in St. Louis
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St. Louis, MO 63130

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### **Education**

Ph.D. in Cognitive Psychology

University of Illinois at Urbana-Champaign

Committee: Aaron S. Benjamin (advisor), William F. Brewer,

Gary S. Dell, Brian D. Gonsalves, Brian H. Ross

Thesis: "Retrieval cue variability: When and why are two meanings better than one?"

M.A. in Cognitive Psychology

2012

University of Illinois at Urbana-Champaign
Thesis: "Adaptive and qualitative changes in encoding strategy with experience"

B.S. in Cognitive Science, summa cum laude

University of California, Los Angeles

Minor in English

Specialization in Computing

### **Honors and Awards**

Graduate Teacher Certificate

University of Illinois at Urbana-Champaign

National Science Foundation Graduate Research Fellow

2007

Mary Jane Neer Scholarship

2007-2011

List of Teachers Ranked as Excellent by Their Students

University of Illinois at Urbana-Champaign

UCLA Regent Scholar

2010

#### **Research Interests**

Overcoming limitations of human learning and memory by improving metacognition and/or offloading aspects of cognition onto the environment.

# **Teaching Interests**

Cognitive psychology, memory, research methods and statistics, introductory psychology, human factors.

Teaching and Mentoring Experience	
Instructor: Introductory Psychology University of Illinois at Urbana-Champaign	Fall 2010
Instructor: Introduction to Statistics  University of Illinois at Urbana-Champaign	Spring 2008
Instructor: Cognitive Psychology Laboratory (Research Methods)  University of Illinois at Urbana-Champaign	Fall 2007
Mentor and Supervisor to 12 undergraduate research assistants:  Introducing Desirable Difficulties for Educational Applications in UCLA Department of Psychology, Funded by the Institute of Education Sciences' Cognition and Student Learning Program	
Research Experience	
Postdoctoral Research Associate, Advisor: Henry L. Roediger III Applying Cognitive Psychology to Enhance Educational Practice, James S. McDonnell Collaborative Activity Award Washington University in St. Louis	2012-
Graduate research, Advisor: Aaron S. Benjamin Memory, metamemory, encoding and retrieval strategies University of Illinois at Urbana-Champaign	2006-2012
Graduate research, Advisor: William F. Brewer Autobiographical memory University of Illinois at Urbana-Champaign	2006-2012
Research Associate, Advisor: Marcia C. Linn Technology Enhanced Learning in Science: A NSF Center for Learning and Teaching UC Berkeley Graduate School of Education	2004-2006
Research Associate, Advisor: Robert A. Bjork Introducing Desirable Difficulties for Educational Applications in Science; Funded by the Institute of Education Sciences' Cognition and Student Learning Program UCLA Department of Psychology	2003-2006
Research Assistant, Advisor: Elisheva F. Gross  UCLA Children's Digital Media Center: A NSF Social, Behavioral, and Economic Center	2003-2005
Research Assistant, Advisor: W. Lewis Johnson University of Southern California Information Sciences Institute	2002
Research Assistant, Advisor: Christine L. Borgman NSF Research Experience for Undergraduates Participant: Alexandria	2001-2003

Digital Earth ProtoType Project
UCLA Graduate School of Education and Information Studies

Research Assistant, Advisor: William A. Sandoval

UCLA Graduate School of Education and Information Studies

2001

Research Assistant, Advisor: Patricia W. Cheng UCLA Department of Psychology 2000-2001

## **Peer-Reviewed Publications**

- **Finley, J. R.**, Benjamin, A. S., & McCarley, J. S. (2014). Metacognition of multitasking: How well do we predict the costs of divided attention? *Journal of Experimental Psychology: Applied*, 20(2), 158-165.
- Nestojko, J. F., **Finley, J. R.**, & Roediger, H. L. (2013). Extending cognition to external agents. *Psychological Inquiry*, 24(4), 321-325.
- Tullis, J. G., **Finley, J. R.**, & Benjamin, A. S. (2013). Metacognition of the testing effect: Guiding learners to predict the benefits of retrieval. *Memory & Cognition*, 41(3), 429-442.
- **Finley, J. R.**, & Benjamin, A., S. (2012). Adaptive changes in encoding strategy with experience: Evidence from the test expectancy paradigm. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 38(3), 632-652.
- **Finley, J. R.**, Brewer, W. F., & Benjamin, A. S. (2011). The effects of end-of-day picture review and a sensor-based picture capture procedure on autobiographical memory using SenseCam. *Memory*, 19(7), 796-807.
- **Finley, J. R.**, Benjamin, A. S., Hays, M. J., Bjork, R. A., & Kornell, N. (2011). Benefits of accumulating versus diminishing cues in recall. *Journal of Memory and Language*, 64, 289-298.
- Borgman, C. L., Smart, L. J., Millwood, K. A., **Finley, J. R.**, Champeny, L., Gilliland, A. J., & Leazer, G. H. (2005). Comparing faculty information seeking in teaching and research: implications for the design of digital libraries. *Journal of the American Society for Information Science and Technology*, *56*(6), 636-657.

#### **Manuscripts Under Review**

- **Finley, J. R.**, Roediger, H. L., Wahlheim, C. N., Hughes, A. D., & Jacoby, L. J. (under review). Simultaneous versus sequential presentation in testing recognition memory for faces.
- Agarwal, P. K., **Finley, J. R.**, Rose, N. S., & Roediger, H. L. (under review). The poorer get richer: Retrieval practice for students with low working memory span increases final recall to the level of high span students.
- **Finley, J. R.**, & Benjamin, A. S. (under review). Retrieval cue variability: When and why are two meanings better than one?
- **Finley, J. R.**, Liu, X., & Benjamin, A. S. (under review). Metacognitive control: Learning to avoid part-list cues?

## **Book Chapters and Conference Proceedings**

**Finley, J. R.**, Tullis, J. G., & Benjamin, A. S. (2010). Metacognitive control of learning and remembering. In M. S. Khine & I. Saleh (Eds.), *New science of learning: cognition, computers and collaboration in education*. Springer.

- Richland, L.E., Bjork, R. A., **Finley, J. R.**, & Linn, M.C. (2005). Linking Cognitive Science to Education: Generation and Interleaving Effects. In B.G. Bara, L. Barsalou, M. Bucciarelli (Eds.), *Proceedings of the Twenty-Seventh Annual Conference of the Cognitive Science Society* (p. 1850). Mahwah, NJ: Lawrence Erlbaum.
- Borgman, C. L., Leazer, G. H., Gilliland-Swetland, A., Millwood, K., Champeny, L., **Finley, J. R.**, & Smart, L. J. (2004). How geography professors select materials for classroom lectures: implications for the design of digital libraries. *JCDL '04: Proceedings of the 4th ACM/IEEE-CS joint conference on Digital libraries* (pp. 179-185). Tucson, AZ: Association for Computing Machinery.
- Champeny, L., Borgman, C. L., Leazer, G. H., Gilliland-Swetland, A. J., Millwood, K. A., D'Avolio, L., **Finley, J. R.**, Smart, L. J., Mautone, P. D., Mayer, R. E., & Johnson, R. A. (2004). Developing a digital learning environment: an evaluation of design and implementation processes. *JCDL '04: Proceedings of the 4th ACM/IEEE-CS joint conference on Digital libraries* (pp. 37-46). Tucson, AZ: Association for Computing Machinery.
- Richland, L.E., **Finley, J. R.**, & Bjork, R. A. (2004). Differentiating the Contextual Interference Effect from the Spacing Effect. In K. Forbus, D. Gentner, & T. Regier (Eds.), *Proceedings of the Twenty-Sixth Annual Conference of the Cognitive Science Society* (p. 1624). Mahwah, NJ: Lawrence Erlbaum.

#### **Manuscripts in Preparation**

- **Finley, J. R.**, & Brewer, W. F. (in preparation). Accuracy and completeness of autobiographical memory: Evidence from a wearable camera.
- **Finley, J. R.**, & Benjamin, A., S. (in preparation). Metacognitive control of transfer-appropriate processing.

### **Posters and Presentations**

- **Finley, J. R.**, & Brewer, W. F. (2013, November). *Evolution of Research Topics in Experimental Psychology: 50 Years of Psychonomic Session Titles*. Poster presented at the annual meeting of the Psychonomic Society, Toronto, Canada.
- Hays, M. J., & **Finley, J. R.** (2013, November). *Computerized Hints Can Optimize Recall: Difficulty and Duration*. Poster presented at the annual meeting of the Psychonomic Society, Toronto, Canada.
- **Finley, J. R.** (2013, October). *Unlocking the Secrets of Hypermnesia*. Cognitive Talk Series, Department of Psychology, University of Illinois at Urbana-Champaign.

**Finley, J. R.** (2013, April). *Effect Size Tutorial: Cohen's d and Omega-squared*. Presentation given to Memory Lab and Memory & Cognition Lab, Department of Psychology, Washington University in St. Louis.

- **Finley, J. R.**, Benjamin, A. S., & McCarley, J. S. (2012, November). *Metacognition of Multi-Tasking*. Poster presented at the annual meeting of the Psychonomic Society, Minneapolis, MN.
- **Finley, J. R.**, & Brewer, W. F. (2011, August). *The Accuracy and Completeness of Recollective Memory*. Presentation given at the 5th International Conference on Memory, York, UK.
- **Finley, J. R.**, & Brewer, W. F. (2010, September). *Accuracy and Completeness of Autobiographical Memory*. Poster presented at SenseCam 2010 Symposium, Dublin, Ireland.
- **Finley, J. R.**, & Fraundorf, S. H. (2010, April). *Signal Detection Theory & Multi-Level Modeling: When "Accuracy" Isn't Always Accurate*. Presentation given to Multilevel Modeling Reading Group, Department of Psychology, University of Illinois at Urbana-Champaign.
- **Finley, J. R.**, Brewer, W. F., & Benjamin, A. S. (2009, October). *Reflections of memory in the environment*. Presentation given at SenseCam 2009 Symposium, Chicago, IL.
- **Finley, J. R.** (2009, January). *SenseCam: a new type of tool to study and augment human cognition*. Visual Cognition and Human Performance Talk Series, Department of Psychology, University of Illinois at Urbana-Champaign.
- **Finley, J. R.**, Brewer, W. F., & Benjamin, A. S. (2008, November). *SenseCam and Autobiographical Memory*. Poster presented at the annual meeting of the Psychonomic Society, Chicago, IL.
- **Finley, J. R.**, Brewer, W. F., & Benjamin, A. S. (2008, June). *Memory effects of daily review of SenseCam images for healthy young adults*. Presentation given at 2nd SenseCam Collaborator's Meeting, Microsoft Research Cambridge Lab, UK.
- **Finley, J. R.**, & Benjamin, A. S. (2007, November). *Adaptive Changes in Encoding Strategy With Experience: Evidence From the Test Expectancy Paradigm*. Poster presented at the annual meeting of the Psychonomic Society, Long Beach, CA.
- **Finley, J. R.** (2007, September). *Adaptive changes in encoding strategy with experience*. Cognitive Talk Series, Department of Psychology, University of Illinois at Urbana-Champaign.
- Linn, M. C., Bjork, R. A., Richland, L. E., Cheng, H., Kornell, N., Hays, M. J., **Finley, J. R.**, & Fink, D. S. (2006, June). *Desirable difficulties in science learning in a Web-Based Inquiry Science Environment (WISE)*. Poster presented at the Institute for Education Sciences 2006 Research Conference, Washington, D. C.

Linn, M. C., Cheng, B. H., Richland, L. E., Bjork, R. A., & Finley, J. R. (2005, January). *Can desirable difficulties improve science learning from text?* Paper presented at the Sixteenth Annual Winter Conference on Discourse, Text, and Cognition. Jackson Hole, Wyoming.

- Tate, E. D., & **Finley, J. R.** (2007, April). *Does the Hanging With Friends, Velocity Style! Module Support Students' Ability to Calculate and Graph Velocity?* Poster presented at the annual meeting of the American Educational Research Association, Chicago, IL.
- Tate, E. D., & Finley, J. R. (2006, April). How do multiple visualizations improve students' understanding of velocity? Poster presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
- **Finley, J. R.** (2005, May). *Desirable difficulties: learning, teaching, and collaboratively bridging.* Paper presented at the Third UCLA Lake Arrowhead Conference on Human Complex Systems, Lake Arrowhead, CA.
- Linn, M. C., Bjork, R. A., Cheng, B. H., Richland, L. E., & **Finley, J. R.** (2005, April). *Improving science learning: generation and reflection*. In E. Albro, Chair, Symposium on Bringing Cognitive Science into the Classroom. Meetings of the American Educational Research Association, Montreal, Canada.
- **Finley, J. R.**, Richland, L. E., Bjork, R. A. (2004, April). *Introducing desirable difficulties into science learning*. Poster presented at the annual meeting of the American Educational Research Association, San Diego, CA.
- Borgman, C. L., Smart, L. J., Millwood, K. A., **Finley, J. R.**, Champeny, L., Gilliland-Swetland, A., Leazer, G. H. (2004, April). *Getting ready for class: the information seeking behavior of geography professors in support of teaching.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

#### **Other Publications and Presentations**

- **Finley, J. R.** (2008, October). Hot Spots Near You: Mildred E. Mathias Botanical Garden, Los Angeles, CA. *Birder's World*.
- **Finley, J. R.** (2006). Hail to the Birds of Westwood. *Western Tanager (Los Angeles Audubon Society), 72*(7), 1-3.
- Methot, L. M., & Finley, J. R. (2003). The UCLA AstroBiology Society: the first student-run astrobiology organization. *Astrobiology*, *3*(2), 249-250.
- Methot, L. M., & **Finley, J. R.** (2003). Origin and Evolution of the UCLA AstroBiology Society. In Norris, R., & Stootman, F. (Eds.), *Bioastronomy 2002: Life Among the Stars, Proceedings of International Astronomical Union Symposium #213* (p. 559). San Francisco: Astronomical Society of the Pacific.
- **Finley, J. R.**, & Methot, L. M. (2002, May). 2002-2003 Education and Public Outreach Initiatives for the Center for Astrobiology: The UCLA AstroBiology Society. Presentation at the UCLA Center for Astrobiology Retreat, Malibu, CA.

**Finley, J. R.**, & Methot, L. M. (2002, April). *Origin and evolution of the UCLA AstroBiology Society*. Poster presented at the Astrobiology Science Conference 2002, NASA Ames Research Center, Moffett Field, CA.

**Finley, J. R.**, & Methot, L. M. (2000, March). *The UCLA AstroBiology Society:* Forming a Multidisciplinary Organization. Presentation at the UCLA Center for Astrobiology Retreat, Westwood, CA.

## **Professional Memberships**

American Educational Research Association Association for Psychological Science Cognitive Science Society International Association for Metacognition Psychonomic Society, Associate Member Society for Applied Research in Memory and Cognition

# **Professional Experience**

Communications Committee, Psychonomic Society: website re-launch (2013)

Chair: Jeremy M. Wolfe

Ad Hoc Reviewer: Behavior Research Methods

Ad Hoc Reviewer: Cognition

Ad Hoc Reviewer: Journal of Cognitive Psychology

Ad Hoc Reviewer: Journal of Experimental Psychology: Applied

Ad Hoc Reviewer: Journal of Experimental Psychology: Learning, Memory, and

Cognition

Ad Hoc Reviewer: Journal of Experimental Psychology: General

Ad Hoc Reviewer: *Memory* 

Ad Hoc Reviewer: Memory & Cognition

### **Technical Skills**

Computer Programming Languages:

C++, HTML, PHP, LISP, MatLab, NetLogo, PASCAL, REAL Basic, Visual BASIC, Flash, AS3.

#### Software:

R, SPSS, SAS, PsyScope, SuperLab, StatView, NVivo/NUDIST, Photoshop, Illustrator, Excel, website design and maintenance.

### References

Professor Aaron S. Benjamin Department of Psychology University of Illinois at Urbana-Champaign 603 East Daniel Street Champaign, IL 61820 (217) 333-6822 asbenjam@cyrus.psych.illinois.edu

Professor William F. Brewer Department of Psychology University of Illinois at Urbana-Champaign 603 East Daniel Street Champaign, IL 61820 (217) 333-1548 wbrewer@illinois.edu

Professor Henry L. Roediger, III Department of Psychology Washington University in St. Louis 1 Brookings Drive St. Louis, MO 63130 (314) 935-8731 roediger@wustl.edu