

## AMY H. CRISS

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### ACADEMIC POSITIONS

- 2017- Chair, Department of Psychology, Syracuse University
- 2017 - Full Professor, Department of Psychology, Syracuse University
- 2013 - 2017 Associate Professor, Department of Psychology, Syracuse University
- 2007 - 2013 Assistant Professor, Department of Psychology, Syracuse University

### EDUCATION

- 2004 - 2007 Postdoctoral Fellow, Center for the Neural Basis of Cognition, Carnegie Mellon University (with James L. McClelland)
- 2004 Ph.D., Indiana University. Joint degree in Cognitive Psychology and Cognitive Science with a certificate in Mathematical Modeling (dissertation: *The representation of single items and associations in episodic memory*, advisor: Richard M. Shiffrin)
- 1997 B.A., Miami University. Psychology and Neuroscience (*magna cum laude*)

### FUNDING

#### External

- 2013 National Science Foundation supplement to BCS-0951612, Role: PI
- 2012 Air Force Office of Sponsored Research. (AFOSR 12RSL077). *Festschrift in honor of Richard M. Shiffrin*, Role: PI
- 2011 - 2012 Air Force Office of Sponsored Research (AFOSR FA9550-10-1-0149). *A Distributed Representation of Remembered Time*, Role: Site PI (PI: Marc Howard, Boston University)
- 2010 - 2016 National Science Foundation (BCS-0951612). *CAREER: Cued Recall: Theory and Data*, Role: PI
- 1999 - 2002 National Science Foundation Graduate Student Fellowship

#### Internal

- 2012 Hill Collaboration, Environmental Medicine: Diseases of the Nervous System. *The effect of Naproxen on human memory*, \$9,940, Role: Co-PI (with Sandra

Hewett)

- 2008 National Science Foundation (HRD-0202171), Central New York - Puerto Rico Alliance for Graduate Education and Professoriate (CNY-PR AGEP), summer research project, Role: Faculty Mentor
- 2005 - 2006 National Institutes of Mental Health Training Grant, *Combined Computational and Behavioral Approaches to the Study of Cognition*, Role: Trainee
- 2004 – 2005 National Institutes of Mental Health Training Grant, *Variation in Mental Function and Dysfunction*, Role: Trainee
- 2003 – 2004 Indiana University College of Arts and Sciences Dissertation Year Research Fellowship

## PUBLICATIONS

\* indicates undergraduate student, underline indicates graduate student, % indicates postdoc, during the course of the research. Most papers are available at <http://memolab.syr.edu/Publications.html>. Authors are listed in order of their degree of involvement in the work, with the most active contributors listed first.

### In Progress

4. Selker, R., van den Bergh, D., Criss, A.H., Wagenmakers, E. (submitted). Parsimonious Estimation of Signal Detection Models from Confidence Ratings
3. Chen, S., Malmberg, K., Prince, M. & Criss, A.H. (submitted) The Effect of Perceptual Information on Output Interference
2. Aue, W.A., \*Fontaine, J. & Criss, A.H. (submitted). Word frequency, but not context variability, dissociates across memory for items and associations
1. Hemmer, P., Criss, A.H., \*Ahluwalia, D. & Wall, D. (submitted). A Megastudy of Orthographic Distinctiveness Effects across Multiple Memory Tasks

### Journal Articles

34. Vempaty, A., Varshney, L.R., Koop, G.J., Criss, A.H., and Varshney, P.K. (in press) Experiments and Models for Decision Fusion by Humans in Inference Networks. *IEEE Transactions on Signal Processing*, doi: 10.1109/TSP.2017.2784358
33. %Cox, G., %Hemmer, P., Aue, W.R., & Criss, A.H (in press). Information and Processes Underlying Semantic and Episodic Memory Across Tasks, Items, and Individuals. *Journal of Experimental Psychology: General*
32. Wilson, J.H., Criss, A.H., Spangler, S.A., \*Walukevich, K., & Hewett, S. (2017). Analysis of acute naproxen administration on memory in young adults: A randomized double-blind placebo–controlled study. *Journal of Psychopharmacology*, 31, 1374-1376.
31. %Cox, G. & Criss, A.H. (2017). Parallel interactive retrieval of item and associative information from event memory. *Cognitive Psychology*, 97, 31-61. <https://doi.org/10.1016/j.cogpsych.2017.05.004>

30. Wilson, J. & Criss, A.H. (2017). The list strength effect in cued recall. *Journal of Memory & Language*, 95, 78-88.
29. Criss, A.H., \*Salomão, C., Malmberg, K.J., Aue, W.A., Kılıç, A., & \*Claridge, M. (in press). Release from Output Interference in Recognition Memory: A Test of the Attention Hypothesis. *Quarterly Journal of Experimental Psychology*
28. Aue, W.R., Criss, A.H., & \*Novak, M.D. (2017). Evaluating mechanisms of proactive facilitation in cued recall. *Journal of Memory and Language*, 94, 103-118.
27. Kilic, A., Criss, A.H., Malmberg, K.J., & Shiffrin, R.M. (2017). Models that allow us to perceive the world more accurately also allow us to remember past events more accurately via differentiation. *Cognitive Psychology*, 92, 65-86
26. Kellen, D., Erdfelder, E., Malmberg, K.J., Dube, C., & Criss, A.H. (2016). The Ignored Alternative: An Application of Luce's Low-threshold Model to Recognition Memory. *Journal of Mathematical Psychology*, 75, 86-95.
25. %Koop, G. & Criss, A.H. (2016). The Response Dynamics of Recognition Memory: Sensitivity and Bias. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 52, 671-685
24. Annis, J., \*Lenes, J. G., Westfall, H., Criss, A H, & Malmberg, K.J. (2015). The List-Length Effect Does Not Discriminate Between Models of Recognition Memory. *Journal of Memory and Language*, 85, 27-41.
23. Aue, W.A., Criss, A.H., %Prince, M. (2015). Dynamic memory searches: Output interference selectively impacts episodic memory. *Psychonomic Bulletin & Review*, 22, 1798-806. doi: 10.3758/s13423-015-0840-5.
22. Howard, M. W., Shankar, K., H., Aue, W.R., & Criss, A.H. (2015). A quantitative model of internal time in memory. *Psychological Review*, 122, 24-53.
21. %Koop, G.J., Criss, A.H., & Malmberg, K.J. (2015) The Role of Mnemonic Processes in Pure-Target and Pure-Foil Recognition Memory. *Psychonomic Bulletin & Review* 22(2):509-516. doi: 10.3758/s13423-014-0703-5
20. Malmberg, K.J., %Lehman, M., Annis, J., Criss, A.H., & Shiffrin, R.M. (2014). Consequences of Testing Memory. *Psychology of Learning & Motivation - Advances in Research and Theory*. 61, 285-313.
19. Criss, A.H., Aue, W.R., & Kilic, A. (2014). Age and response bias: Evidence from the strength based mirror effect. *Quarterly Journal of Experimental Psychology*, 67, 1910-1924.
18. %Hemmer, P. & Criss, A.H. (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, 1947-1952. doi: 10.1037/t19791-000
17. Annis, J., Malmberg, K.J., Criss, A.H., & Shiffrin, R.M. (2013). Sources of interference in recognition testing. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 39, 1365-1376. doi: 10.1037/a0032188

16. Criss, A. H., Wheeler, M. E., & McClelland, J. L. (2013). A differentiation account of recognition memory: Evidence from fMRI. *Journal of Cognitive Neuroscience*, 25, 421-435. doi:10.1162/jocn\_a\_00292
15. Kilic, A., Criss, A.H., and Howard, M. W. (2013). A causal contiguity effect that persists across time scales. *Journal of Experimental Psychology: Learning, Memory, & Cognition*. 39, 297-303. doi: 10.1037/a0028463
14. Malmberg, K.J., Criss, A.H., \*Gangwani, T. & Shiffrin, R.M. (2012). Overcoming the negative consequences of interference that results from recognition memory testing. *Psychological Science*, 23, 115-119 [lead article].
13. Wagenmakers, E., Kryptos, A., Criss, A.H., & Iverson, G. (2012). On the interpretation of uninterpretable interactions: A survey of the field 32 years after Loftus. *Memory & Cognition*, 40, 145-160 [lead article].
12. Aue, W.R., Criss, A.H., \*Fischetti, N. (2012). Associative information in memory: Evidence from cued recall. *Journal of Memory and Language*, 66, 109-122.
11. Criss, A.H., Malmberg, K.J., & Shiffrin, R.M. (2011). Output interference in recognition memory. *Journal of Memory and Language*, 64, 316-326.
10. Criss, A.H., Aue, W.R., & \*Smith, L. (2011). The effects of word frequency and context variability in cued recall. *Journal of Memory and Language*, 64, 119-132.
9. Criss, A.H. (2010). Differentiation and response bias in episodic memory: Evidence from reaction time distributions. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 36, 484-499.
8. Criss, A.H. (2009). The distribution of subjective memory strength: List strength and response bias. *Cognitive Psychology*, 59, 297-319.
7. Criss, A.H. & Malmberg, K.J. (2008). Evidence in support of the elevated attention hypothesis of recognition memory. *Journal of Memory & Language*, 59, 331-345.
6. Criss, A.H. (2006). The consequences of differentiation in episodic memory: Similarity and the strength based mirror effect. *Journal of Memory & Language: Special Issue on Computational Models of Memory*, 55, 461-478.
5. Criss, A.H. and McClelland, J.L. (2006). Differentiating the differentiation models: A comparison of the retrieving effectively from memory model (REM) and the subjective likelihood model (SLiM). *Journal of Memory & Language: Special Issue on Computational Models of Memory*, 55, 447-460 [lead article].
4. Criss, A.H. and Shiffrin, R.M. (2005). List discrimination and representation in associative recognition. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 31, 1199-1212.
3. Criss, A.H. and Shiffrin, R.M. (2004c). Pairs do not suffer interference from other types of pairs or single items in associative recognition. *Memory & Cognition*, 32, 1284-1297.
2. Criss, A.H. and Shiffrin, R.M. (2004b). Interactions between study task, study time, and the low frequency hit rate advantage in recognition memory. *Journal of Experimental*

*Psychology: Learning, Memory, & Cognition*, 30, 778-786.

1. Criss, A.H. and Shiffrin, R.M. (2004a). Context noise and item noise jointly determine recognition memory: A comment on Dennis & Humphreys (2001). *Psychological Review*, 111, 800-807.

### **Books (Editor)**

2. *Computational Approaches to Cognition* Series Editor, Springer.
- 2c. Dunn, J. & Kalish, M. (forthcoming) *State Trace Analysis*
- 2b. Palestro, J., Sederberg, P., Osth, A., VanZandt, T., & Turner, B. (forthcoming) *Likelihood-Free Methodology*
- 2a. Turner, B., Steyvers, M. & Forstman, B. (under contract) *Joint Modeling*
1. Raaijmakers, J., Criss, A.H., Goldstone, R., Nosofsky, R., & Steyvers, M. (Eds.). (2015). *Cognitive Modeling in Perception and Memory: A Festschrift for Richard M. Shiffrin*. Psychology Press.

### **Referred Conference Proceedings**

2. Vempaty, A., Varshney, L.R., Koop, G.J., Criss, A.H., & Varshney, P. (2015). Decision Fusion by People: Experiments, Models, and Sociotechnical System Design. Proceedings of the IEEE Global Conference on Signal and Information Processing, GlobalSIP 2015, 83-87. doi:10.1109/GlobalSIP.2015.7418161
1. Vempaty, A., Koop, G.J., Criss, A.H., Varshney, L., & Varshney, P. (2014). How efficient are we at fusing decisions? in Conference on Digital Experimentation: CODE@MIT. Conference Proceedings. Cambridge, MA.

### **Book Chapters and Other Publications**

10. Kilic, A. & Criss, A.H. (in press). Methods for Studying Memory Differences Between Younger and Older Adults. In: Otani, H. & Schwartz, B. (Eds.) *Handbook on Research Methods in Human Memory Research*.
9. Criss (in press). In Vivo commentary on Basic Parameter Estimation chapter of Farrell & Lewandowsky *Computational Modeling in Cognition*
8. Criss, A.H. & Koop, G.J. (2015). Differentiation in Episodic Memory. In Raaijmakers, J., Criss, A.H., Goldstone, R., Nosofsky, R., & Steyvers, M. (Eds.). *Cognitive Modeling in Perception and Memory: A Festschrift for Richard M. Shiffrin*, (pgs 112-125). Psychology Press.
7. Criss, A. H. & Howard, M. (2015). Models of Episodic Memory. In J. Busemeyer, J. T. Townsend, Z. Wang, & A. Eidels (Eds.) *Oxford Handbook of Computational and Mathematical Psychology*, (pgs 165-183). Cambridge, Oxford University Press.
5. Criss, A. H., Malmberg, K. J. & Townsend, J.T. (2014). Editors' foreword for the special issue honoring William Kaye Estes. *Journal of Mathematical Psychology*, 59, 1-2. . <http://dx.doi.org/10.1016/j.jmp.2014.03.002>

4. Aue, W. R., Hemmer, P. & Criss, A. H. (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.
3. Klein, K.A., Shiffrin, R.M., and Criss, A.H. (2007). Putting context in context. In J. S. Nairne (Ed.), *The Foundations of Remembering: Essays in Honor of Henry L. Roediger II*. New York: Psychology Press.
2. Criss, A.H. (2005). The representation of single items and associations in episodic memory. (Doctoral dissertation, Indiana University, 2004). *Dissertation Abstracts International-B*, 65(12), 6882.
1. Klein, K., Criss, A.H., and Shiffrin, R.M. (2004). Recency judgments and list context. [Abstract]. *Proceedings of the Twenty-Sixth Annual Meeting of the Cognitive Science Society* (p. 1578). Mahwah, NJ: Erlbaum.

## **AWARDS AND HONORS**

APA Leadership Institute for Women in Psychology (2016)

FABBS (Federation of Associations in Behavioral & Brain Sciences) Foundation Early Career Impact Award (2015)

Indiana University Outstanding Young Alumni Award (2015)

Student Research Achievement Award, Indiana University, Department of Cognitive Science

Outstanding Dissertation Award, Indiana University, Department of Cognitive Science

Fellow, McDonnell Foundation Summer Institute in Cognitive Neuroscience, Dartmouth College

Patten Prize, Department of Psychology, Miami University

## **PROFESSIONAL SERVICE**

### **Editor**

2014 *Journal of Mathematical Psychology*, Special Issue in Honor of W.K. Estes

### **Associate Editor**

2018 - *Computational Brain and Behavior*

2018 - *Journal of Experimental Psychology: Learning, Memory, & Cognition*

2014 - *Behavior Research Methods*

### **Editorial Board Member**

2014 - *Psychological Review*

- 2011- *Psychonomic Bulletin & Review*
- 2010-2018 *Journal of Experimental Psychology: Learning, Memory, & Cognition*
- 2009 - *Journal of Memory & Language*

**Ad Hoc Journal Reviewer (selected)**

*Aging, Neuropsychology and Cognition, Canadian Journal of Experimental Psychology, Cognitive Psychology, Conference Proceedings of the Cognitive Science Society, Developmental Psychology, Journal of Cognitive Psychology, Journal of Experimental Psychology: General, Journal of Gerontology: Psychological Sciences, Memory & Cognition, Perception & Psychophysics, Quarterly Journal of Experimental Psychology*

**Grant Review Panel**

- 2013; 2014; 2017 National Science Foundation, Panel
- 2012 -2016 National Science Foundation, Perception, Action and Cognition Program Behavioral and Cognitive Science division. College of Reviewers

**Ad Hoc Grant Review**

- 2018 Swiss National Science Foundation
- 2017 NWO (Netherlands Organisation for Scientific Research) Social Sciences
- 2014 Israeli Science Foundation
- 2011 Alzheimer's Association International Research Grant Program
- 2010 National Science Foundation, Perception, Action and Cognition Program Behavioral and Cognitive Science division

**Conference Organizer**

- 2015, 2016 Computational Approaches to Cognition Symposium, Psychonomics Satellite Conference sponsored by the Society for Mathematical Psychology
- 2015 Neuroscience Research Day, Syracuse University Neuroscience Program
- 2014 Society for Mathematical Psychology Professional Development Symposium
- 2012 Festschrift honoring Richard M. Shiffrin
- 2010 - 2013 Context in Episodic Memory Symposium
- 2001 Hoosier Mental Life

**Board Member**

- 2017 Psychonomic Society representative to FABBS
- 2011 –2017 Society for Mathematical Psychology (elected), Vice President 2013-14 ;

President 2014-2016

### **INVITED TALKS**

- 2016 University of Massachusetts
- 2016 Festschrift in honor of Jeroen Raaijmakers
- 2015 Society for Applied Research in Memory and Cognition
- 2015 Society for Mathematical Psychology Plenary Talk
- 2012 Festschrift in Honor of Richard M. Shiffrin
- 2011 Context in Episodic Memory Symposium, Discussant
- 2010 Models of Episodic Memory Symposium, Society for Mathematical Psychology Meeting
- 2010 Practical Applications of Models for Response Time Symposium, Society for Mathematical Psychology Meeting
- 2008 University of Massachusetts, Amherst
- 2006 University of Pittsburgh
- 2005 Context in Episodic Memory Symposium, Discussant
- 2005 Carnegie Mellon University
- 2005 Iowa State University

### **INVITED WORKSHOPS**

- 2017 Priority Project on Human Multitasking Summer School in Cognitive Modeling
- 2016 Computational Modeling Summer School
- 2014 Computational Modeling Summer School

### **CONFERENCE PRESENTATIONS**

(\* indicates undergraduate student, underline indicates graduate student, % indicates postdoc during research project)

- 109. Koop, G. & Criss, A.H., (2016). The Response Dynamics of Recognition for Emotional Items. Psychonomic Society, Boston, MA
- 108. %Cox, G. E., & Criss, Amy H. (2016) Parallel Facilitatory Retrieval of Item and Associative Information from Event Memory. Psychonomic Society, Boston, MA [select-speaker award]
- 107. Chen, S., Wilson, J., & Criss, A.H. (2016). Item Differentiation and Competitive Context Sampling in Cued Recall. Psychonomic Society, Boston, MA



106. Criss, A. H., %Cox, G. E., Aue, W., %Hemmer, P., & Wilson, J (2016). Toward a Comprehensive Account of Memory Across Items, Tasks, and Individuals. Psychonomic Society, Boston, MA
105. %Cox, G. E., & Criss, Amy H. (2016). Systems Factorial Analysis of Item and Associative Retrieval. Conference of the Cognitive Science Society. Philadelphia, PA.
104. %Cox, G. E., & Criss, Amy H. (2016). Parallel Facilitatory Retrieval of Item and Associative Information from Event Memory: Insights from Systems Factorial Technology. Society for Mathematical Psychology. New Brunswick, NJ.
103. Wilson, J. H., Chen, S., & Criss, A. H. (2016). The list strength effect in cued recall will not be pushed around. Society for Mathematical Psychology. New Brunswick, NJ.
102. Chen, S & Criss, A.H. (2016). Weighting of Item and Context in Memory Retrieval: List Strength Effect in Cued Recall. Computational Modelling Summer School. Dobbiaco, Italy.
101. Criss, AH, Kilic, A, Malmberg, KJ, \*Fontaine, J (2016). Output Interference and Feedback in Recognition Memory. Annual Summer Interdisciplinary Conference. Val Gardena, Italy.
100. Criss, A., Kilic, A., Malmberg, K., & \*Fontaine, J. (2016). Output Interference and Feedback in Recognition Memory: Incrementing in REM. Festschrift in Honor of Jeroen Raaijmakers. Amsterdam, The Netherlands.
99. %Cox,G.E. & Criss, A.H. (2016). Parallel Facilitatory Retrieval of Item and Associative Information from Event Memory. Context in Episodic Memory Symposium, Philadelphia, PA.
98. Wilson, J.H. & Criss. A.H. (2016). The list strength effect in cued recall. Context in Episodic Memory Symposium. Philadelphia, PA.
97. Aue, W.R., Criss, A.H., Spangler, S.A., Karpicke, J.D., & \*Mehanovic, I. (2015). Examining the Relationship Between Testing Effects and Output Interference in Recognition Memory. Psychonomic Society, Chicago, IL.
96. Wilson, J. & Criss, A.H. (2015). Output Interference in Cued Recall. Psychonomic Society, Chicago, IL.
95. Criss, A.H., Kilic, A., Malmberg, K.J., \*Fontaine, J. (2015). Learning During Study and Test: A Joint Evaluation of List Length Effects and Output Interference. Psychonomic Society, Chicago, IL.
94. %Koop, G.J., Criss, A.H., & \*Pardini, A.M. (2015). Does the Strength-Based Mirror Effect Persist Under Conditions Inhospitable to Criterion Shifts? Psychonomic Society, Chicago, IL.
93. Kellen, D., Erdfelder, E., Malmberg, K.J., Dube, C., & Criss, A.H. (2015). The Ignored Alternative: An Application of Luce's Low-threshold Model to Recognition Memory. Computational Approaches Symposium. Chicago, IL.
92. Annis, J., \*Lenes, J. G., Westfall, H., Criss, A H, & Malmberg, K.J. (2015). The List-Length Effect Does Not Discriminate Between Models of Recognition Memory. Computational Approaches Symposium. Chicago, IL.

91. Wilson, J. H., and Criss, A. H. (2015). Release from output interference in cued recall: Cue-target dissociations. Society for Mathematical Psychology, Newport Beach, CA.
90. %Cox, G. E., Criss, A. H., & Shiffrin, R. M. (2015). The Dynamics of Single Item and Associative Recognition. Society for Mathematical Psychology, Newport Beach, CA.
89. Aue, W. R., Criss, A. H., & Wilson, J. H. (2015). Evaluating the robustness of output interference. Society for Mathematical Psychology, Newport Beach, CA.
88. Criss, A.H (2015). Differentiation: A core mechanism underlying episodic memory. Society for Mathematical Psychology, Newport Beach, CA.
87. Criss, A.H. & %Cox, G. (2015). Hierarchical Bayesian Modeling of Item-Level Effects in Item and Associative Memory. Society for Mathematical Psychology, Newport Beach, CA.
86. Criss, A.H., Aue, W.A., & Wilson, J.H. (2015). (lack of) Output Interference in Semantic Memory. Annual Summer Interdisciplinary Conference, Mammoth, CA.
85. Criss, A.H. & Aue, W.A. (2015). Interference in Memory. Society for Applied Research in Memory and Cognition. Victoria, BC.
84. Wilson, J. & Criss, A.H. (2015). Release from Output Interference in Cued Recall: Dissociations between cues and targets. Context in Episodic Memory Symposium, Philadelphia, PA.
83. %Cox, G. E., Shiffrin, R.M., & Criss, A.H. (2015). A Dynamic Approach to Item and Associative Recognition Context in Episodic Memory Symposium. Philadelphia, PA.
82. \*Mehanovic,I., Spangler, S., Criss, A.H., & Aue, W. (2015). Examining the relationship between testing effects and output interference in Recognition Memory. APS. New York, NY.
81. %Koop, G.J., & Criss, A.H (2014). Output interference and the strength-based mirror effect. Annual Meeting of the Psychonomic Society. Long Beach, CA.
80. %Koop, G.J., & Criss, A.H. (2014). The dynamics of the strength-based mirror effect. Summer School on Computational Modeling of Cognition. Laufen, Germany.
79. Spangler, S. A., Criss, A. H., Hewett, S., Shefner, J., & Wang, D. (2014). The effect of acute naproxen administration on memory. Context and Episodic Memory Symposium. Philadelphia, PA.
78. Spangler, S. A., Criss, A. H., Hewett, S., Shefner, J., & Wang, D. (2014). The effect of acute naproxen administration on memory. Annual Meeting of the Psychonomic Society. Long Beach, CA.
77. Wilson, J.H. & Criss, A.H (2014). The list strength effect in cued recall . Annual Meeting of the Society for Mathematical Psychology. Québec, Canada.
76. Wilson, J.H. & Criss, A.H (2014). The retrieving effectively from memory model and the list strength effect in cued recall. Summer School on Computational Modeling of Cognition. Laufen, Germany.

75. %Koop, G.J., & Criss, A.H. (2014). The strength-based mirror effect persists under conditions inhospitable to criterion shifts . Context and Episodic Memory Symposium. Philadelphia, PA.
74. Aue, W. R. & Criss, A. H. (2014). Understanding proactive facilitation in cued recall. Annual meeting of the Psychonomic Society . Long Beach, CA, USA.
73. Aue, W.R., %Prince, M.A., & Criss, A.H. (2013, November). Examining Output Interference in Memory for Factual Information. Poster presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.
72. Criss, A.H., %Koop, G.J., & Malmberg, K.J. (2013, November). Feedback and test composition effects in recognition memory. Paper presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.
71. %Koop, G.J., & Criss, A.H. (2013, November). Response dynamics as a measure of bias and strength in recognition memory. Poster presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.
70. %Prince, M.A., Criss, A.H., Malmberg, K.J., & \*Peckoo, S. (2013, November). The Effect of Presentation Modality on Output Interference. Poster presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.
69. Wilson, J.H., Aue, W.R., & Criss, A.H. (November 2013). The effects of cue and target strength in cued recall. Poster presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada.
68. %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.
67. %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' Amprezzo, Italy.
66. %Koop, G.J., & Criss, A.H. (August, 2013). Response dynamics as a measure of bias and strength in recognition memory. Paper presented at the Society for Mathematical Psychology, Potsdam, Germany.
65. Aue, W. R., %Hemmer, P., Criss, A. H. (2013, July). A Bayesian Analysis of Bias in Single Item Recognition for Continuous Word frequency. Poster presented at the annual meeting of the Society for Mathematical Psychology. Potsdam, Germany.
64. Aue, W. R., %Hemmer, P., Criss, A. H. (2013, July). A Bayesian Analysis of Bias in Single Item Recognition for Continuous Word frequency. Poster presented at the annual meeting of the Cognitive Science Society. Berlin, Germany.
63. Aue, W. R., \*Fontaine, J., and Criss, A. H. (2013, May). Word frequency and context variability effects dissociate as a function of test type. Poster presented at the annual meeting of the Context and Episodic Memory Symposium. Philadelphia, PA
62. %Koop, G.J., & Criss, A.H. (May, 2013). Response dynamics as a measure of bias and strength in recognition memory. Paper presented at the Context and Episodic Memory

Symposium, Philadelphia, PA.

61. %Hemmer, P., Aue, W., Criss, A & Park, A. (May, 2013). The Relationship Between Multiple Memory Tasks. Spoken presentation at the Context and Episodic Memory Symposium, Philadelphia, PA.
60. \*Salomão, C., \*Claridge, M., Kılıç, A., Aue, W.R. & Criss, A.H. (2013, March). Release from Output Interference in Long Term Memory. Eastern Psychological Association. New York, New York.
59. \*Fontaine, J.M., \*Holder, J.N., Kılıç, A., Aue, W.R. & Criss, A.H. (2013, March). Examining Output Interference as a Function of Study List Length. Eastern Psychological Association. New York, New York.
58. Aue, W. R., \*Fontaine, J., and Criss, A. H. (2012, November). Context variability and memory for items and associations. Poster presented at the annual meeting of the Psychonomic Society. Minneapolis, MN.
57. %Hemmer, P. & Criss, A. (2012, November). The effect of continuous word frequency, context variability and OLD across memory tasks. The annual meeting of the Psychonomic Society. Minneapolis, MN
56. Kılıç, A., Criss, A. H., Malmberg, K. J. (2012, November). *Output interference and list strength in recognition memory*. Poster session presented at the 53<sup>rd</sup> Annual Meeting of the Psychonomic Society, Minneapolis, MN
55. Aue, W. R. and Criss A. H. (2012, July). Item strength and associative information: Examining the role of item repetition on subsequent cued recall. Poster presented at the annual meeting of the Society of Mathematical Psychology. Columbus, OH.
54. %Hemmer, P. & Criss, A. (2012, July). The effect of continuous word frequency, context variability and OLD across memory tasks. The annual Conference of the Society for Mathematical Science. Columbus, OH.
53. Criss, A.H. (2012, May). Differentiation in episodic memory. Talk given at the Festschrift in Honor of Richard M. Shiffrin, Bloomington, IN.
52. Kilic A. & Criss, A.H. (2012, May). Output interference and strength based mirror effect in recognition memory. Poster presented at the Context and Episodic Memory Symposium, Bloomington, IN.
51. Aue, W.R. and Criss A.H. (2012, May). Item strength and associative information: Examining the role of item repetition on subsequent cued recall. Poster presented at the Context and Episodic Memory Symposium. Bloomington, IN.
50. %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.
49. \*Fontaine, J.M., Aue, W.R. & Criss, A.H. (2012, March). Effects of word frequency and context variability on episodic memory in single item recognition and associative recognition. Poster presented at the Eastern Psychological Association Meeting,

Pittsburgh, PA.

48. Aue, W.R. & Criss, A.H. (2011, November). Items strength benefits associative encoding. Poster presented at the Psychonomic Society meeting. Seattle, WA.
47. %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.
46. Kilic, A., Criss, A.H., & Howard, M.W. (2011, November). A causal contiguity effect in probed recall. Poster session presented at the Psychonomic Society meeting, Seattle, WA.
45. Criss, A.H., Malmberg, K., Shiffrin, R.M., & \*Gangwani, T. (2011, July). Output interference in recognition memory. Talk given at the Society for Mathematical Psychology meeting, Boston, MA.
44. Aue, W.R. & Criss, A.H. (2011, July). The role of cue strength in cued recall. Poster presented at the Society for Mathematical Psychology meeting, Boston, MA.
43. Kilic, A., Criss, A.H., and Howard, M.W. (2011, July). Probed recall: Empirical evidence and theoretical implications. Poster presented at the Society for Mathematical Psychology meeting, Boston, MA.
42. Kilic, A., Criss, A.H., and Howard, M.W. (2011, May). Probed recall: Empirical evidence and theoretical implications. Poster presented at the Context and Episodic Memory Symposium, Philadelphia, PA.
41. Aue, W.R., Criss, A.H., & \*Fischetti, N.W. (2011, May). Associative information in memory: Evidence from cued recall. Poster presented at the Context in Episodic Memory Symposium, Philadelphia, PA.
40. Criss, A.H., Wheeler, M.E., & McClelland, J.L. (2011, May). A differentiation account of recognition memory: Evidence from fMRI. Poster presented at the Context in Episodic Memory Symposium, Philadelphia, PA.
39. Criss, A.H., Wheeler, M.E., & McClelland, J.L. (2011, April). A differentiation account of recognition memory: Evidence from fMRI. Poster presented at the Society for Cognitive Neuroscience meeting, San Francisco, CA.
38. Aue, W.R., Criss, A.H., & \*Fischetti, N.W. (2010, November). Item repetition Within (but not across) pair type helps and harms cued recall. Poster presented at the Psychonomic Society meeting. St. Louis, MO.
37. Criss, A.H., Malmberg, K.J., & Shiffrin, R.M. (2010, November). Test position effects: Implications for item noise and context noise models. Talk given at the Psychonomic Society meeting. St. Louis, MO.
36. Criss, A.H., & Aue, W.R. (2010, August). Using cued recall to move beyond task specific models. Models of Episodic Memory Symposium (Organizer: Simon Dennis) at the Society for Mathematical Psychology meeting. Portland, OR.
35. Criss, A.H. (2010, August). Using the diffusion model to discriminate between memory models. Practical Applications of Models for Response Time Symposium (Organizer:

Joachim Vandekerckhove) at the Society for Mathematical Psychology meeting. Portland, OR.

34. Criss, A.H. (2010, July). Item repetition and cued recall. Talk given at the Annual Summer Interdisciplinary Conference. Bend, OR.
33. Criss, A.H., Aue, W.R., & \*Smith, L. (2010, April). The effects of word frequency and context variability in cued recall. Talk given at the Context in Episodic Memory Symposium, Philadelphia, PA.
32. Criss, A.H. (2009, November), Encoding strength: Differentiation or criterion shift? Talk given at the Psychonomic Society meeting, Boston, MA.
31. Criss, A.H. (2009, August), Differentiation and response bias in episodic memory: evidence from reaction time distributions. Talk given at the Society for Mathematical Psychology meeting, Amsterdam, The Netherlands.
30. Criss, A.H. (2009, July), Differentiation and response bias in episodic memory: evidence from reaction time distributions. Talk given at the Annual Summer Interdisciplinary Conference, Sarre, Italy.
29. Criss, A.H. (2009, January). An application of the diffusion model to the strength based mirror effect in recognition memory. Talk given at the Context in Episodic Memory Symposium, West Palm Beach, FL.
28. Criss, A.H. & Malmberg, K.J. (2008, November). Evidence in favor of the early-phase elevated-attention hypothesis. Poster presented at the Psychonomic Society meeting, Chicago, IL.
27. Criss, A.H. (2008, July), The strength assumption vs. differentiation: Evidence from direct ratings of memory strength. Talk given at the Society for Mathematical Psychology meeting, Washington DC.
26. Criss, A.H. (2008, January). The strength based mirror effect: Tests of the differentiation account. Talk given at the Context in Episodic Memory Symposium. Tampa, FL.
25. Criss, A.H. (2006, August). Differentiation, similarity, and the strength based mirror effect. Talk given at the Annual Summer Interdisciplinary Conference. Andslesnes, Norway.
24. Criss, A.H. (2006, July). Differentiation, similarity, and the strength based mirror effect. Talk given at the Society for Mathematical Psychology meeting. Vancouver, B.C., Canada.
23. Criss, A.H. (2006, January). An empirical test of differentiation in episodic memory. Talk given at the Annual Interdisciplinary Conference. Jackson Hole, WY.
22. Criss, A.H. (2005, November). Orienting task, letter distinctiveness, and the word frequency effect in recognition memory. Poster presented at the Psychonomic Society meeting. Toronto, ON.
21. Klein, K.A., Criss, A.H., & Shiffrin, R.M. (2005, August). Putting recency into context. Talk presented at the Annual Summer Interdisciplinary Conference, Briançon, France.

20. Criss, A.H. & McClelland, J. (2005, July). A comparison of the subject likelihood model (SLiM) and the retrieving effectively from memory model (REM). Talk given at the Society for Mathematical Psychology meeting. Memphis, TN.
19. Klein, K.A., Criss, A.H., & Shiffrin, R.M. (2005, March). Putting recency into context. Talk given at Hoosier Mental Life 2005, Oxford, Ohio.
18. Criss, A.H. (2005, February). When context fails. Talk given at the Context in Episodic Memory Symposium. Philadelphia, PA.
17. Klein, K., Criss, A.H., and Shiffrin, R.M. (2004, August). Judgments of recency and list context. Talk given at the Annual Summer Interdisciplinary Conference. Cavalese, Italy.
16. Criss, A.H. (2004, August). Dissimilar representations: Modeling associations and items. Talk given at the Annual Summer Interdisciplinary Conference. Cavalese, Italy.
15. Criss, A.H. & Shiffrin, R.M. (2003, August). A re-examination of the hit rate advantage for low frequency words in recognition memory. Talk given at the Annual Summer Interdisciplinary Conference. Squamish, B.C.
14. Criss, A.H. & Shiffrin, R.M. (2003, July). The effect of study task on the low frequency hit rate advantage. Talk given at the Society for Mathematical Psychology meeting. Ogden, UT.
13. Criss, A.H. & Shiffrin, R.M. (2003, January). Memory representations of single items and pairs. Talk given at the Annual Interdisciplinary Conference. Jackson Hole, WY.
12. Criss, A.H. & Shiffrin, R.M. (2002, August). The representation of associative information. Talk given at the Annual Summer Interdisciplinary Conference. Squamish, B.C.
11. Criss, A.H., \*McCreary, P. & Shiffrin, R.M. (2002, March). Context effects in recognition memory - comparing novel vs. known items. Talk given at Hoosier Mental Life. Columbus, OH.
10. Shiffrin, R.M., Cohen, A. & Criss, A.H. (2002, January). Relating recognition memory to categorization with Bayesian modeling. Talk given at the Annual Interdisciplinary Conference. Jackson Hole, WY.
9. Criss, A.H. & Shiffrin, R.M. (2001, November). Interference in associative recognition. Poster presented at the Psychonomic Society meeting. Orlando, FL.
8. Criss, A.H. & Shiffrin, R.M. (2001, July). Recognition of associative information. Talk given at the Society for Mathematical Psychology meeting. Providence, RI.
7. Criss, A.H., Malmberg, K., Shiffrin, R.M., & Zeelenberg, R. (2001, March). When is context information stored? A test of the one-shot hypothesis. Talk given at Hoosier Mental Life. Bloomington, IN.
6. \*Dodge, L., Criss, A.H., McAuley, D. & Shiffrin, R.M. (2001, March). Familiarization effects on context discrimination for novel melodies. Talk given at Hoosier Mental Life. Bloomington, IN.

5. Criss, A.H. & Shiffrin, R.M. (2001, January). Why are you confused? Item and context noise in recognition memory. Talk given at the Annual Interdisciplinary Conference. Jackson Hole, WY.
4. Criss, A.H. & Shiffrin, R.M. (2000, March). List-noise vs. context-noise models of recognition memory. Talk given at Hoosier Mental Life. South Bend, IN.
3. Criss, A.H. & Shiffrin, R.M. (2000, January). Testing context-noise vs. global-familiarity models of memory. Talk given at the Annual Interdisciplinary Conference. Jackson Hole, WY.
2. Asaka, Y., Seager, M.A., \*Criss, A.H., \*Harlan, K.M., and Berry, S.D. (1997, November). Scopolamine disruption of conditioned behavioral and hippocampal responses in appetitive trace classical conditioning. Poster presented at Society for Neuroscience meeting. New Orleans, LA.
1. Thomas, R.D. and \*Criss, A.H. (1997, November). Handedness as a source of individual differences in category learning. Poster presented at the Psychonomic Society. Philadelphia, PA.

## **PROFESSIONAL AFFILIATIONS**

- 2016- American Psychological Association
- 2013 - Faculty Affiliate, Syracuse University Neuroscience Program
- 2008 - Faculty Affiliate, Syracuse University Aging Studies Institute
- 2007 - 2011 Research Faculty, Center for Health and Behavior, Syracuse University
- 2005 - Psychonomic Society
- 2001 - Society for Mathematical Psychology

## **UNIVERSITY AND DEPARTMENTAL SERVICE & LEADERSHIP (selected)**

- 2016 Middlestates Accreditation Standard 6 Committee
- 2014 College of Arts & Sciences Dean Search Committee
- 2013-2016 Neuroscience Program, Executive Board
- 2012 - 2017 Neuroscience Interdisciplinary Major, Steering Committee Member
- 2011 - Women in Science and Engineering, Advisory Board
- 2011 – 2017 Area Director, Cognition, Brain, & Behavior Area, Department of Psychology, Syracuse University
- 2010 -2016 Research Participation Pool Director, Department of Psychology, Syracuse University
- 2009 - Psychology Research Initiative in Diversity Enhancement (PRIDE) Research Mentor & Committee Chair



## **MEDIA COVERAGE**

- 10/26/2015 Associate Psychology Professor Amy Criss Receives Awards for Work on Memory [link](http://news.syr.edu/associate-psychology-professor-amy-criss-receives-awards-for-work-on-memory-81403/): <http://news.syr.edu/associate-psychology-professor-amy-criss-receives-awards-for-work-on-memory-81403/>
- 8/18/2015 Forecasting Memory [link](http://www.fabbs.org/fabbs-foundation/education-resources/science-communications/forecasting-memory/): <http://www.fabbs.org/fabbs-foundation/education-resources/science-communications/forecasting-memory/>
- 5/7/2015 When Burkina Faso does not prevent birds from flying backwards: Output effects in knowledge tests, *Psychonomic Society featured content* [link](http://www.psychonomic.org/featured-content-detail/when-burkina-faso-does-not-prevent-birds-from-flyi): <http://www.psychonomic.org/featured-content-detail/when-burkina-faso-does-not-prevent-birds-from-flyi>
- 4/26/2012 Switch subject to increase memory accuracy, *Counsel & Heal*, [link](http://www.counselheal.com/articles/1716/20120426/increase-memory-accuracy-linked-switching-subject.htm): <http://www.counselheal.com/articles/1716/20120426/increase-memory-accuracy-linked-switching-subject.htm>
- 4/25/2012 Switching subject categories could improve test scores, *Science Daily*, [link](http://www.sciencedaily.com/releases/2012/04/120425115550.htm): <http://www.sciencedaily.com/releases/2012/04/120425115550.htm>
- 4/24/2012 Switching subject categories could improve test scores, *NSF News From the Field*, [link](http://www.nsf.gov/news/news_summ.jsp?cntn_id=124006): [http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=124006](http://www.nsf.gov/news/news_summ.jsp?cntn_id=124006)
- 4/24/2012 Switching subject categories could improve test scores, *SU News*, [link](http://www.syr.edu/news/articles/2012/as-psychological-science-04-12.html): <http://www.syr.edu/news/articles/2012/as-psychological-science-04-12.html>
- 12/5/2010 SU psychologist receives grant to continue studies in episodic memory, *Daily Orange*, [link](http://www.dailyorange.com/mobile/news/su-psychologist-receives-grant-to-continue-studies-in-episodic-memory-1.1822115): <http://www.dailyorange.com/mobile/news/su-psychologist-receives-grant-to-continue-studies-in-episodic-memory-1.1822115>
- 11/19/10 SU psychologist wins NSF CAREER award to study memory, *SU News*

## **TEACHING**

- Undergraduate Introduction to Research Methods, Cognitive Psychology, Human Memory, Research Experience
- Graduate Memory & Attention, Advanced Experimental Psychology (MATLAB programming), Proseminar, Research Experience

## **FORMAL MENTORING**

- Faculty** David Kellen, Corey White, Natalie Russo
- Postdoctoral Fellows** Greg Cox, postdoc at Syracuse University  
Rachel Stephens, postdoc at the University of Adelaide (secondary with Kalish)  
Greg Koop, faculty at Eastern Mennonite University  
Melissa Prince, postdoc at Flinders University  
Pernille Hemmer, faculty at Rutgers

**Graduate  
Student  
Advisees**

Sharon Chen, Syracuse University  
Jenny Sloane, Syracuse University (co with Kellen)  
Ryan Curl, MA, Syracuse University (co with Kellen)  
Jack Wilson, MA, Syracuse University  
Sean Spangler, MA, research assistant at University of Pennsylvania  
Jennifer Provyn, PhD, Children's Mercy Hospital (primary advisor Marc Howard)  
Nathen Thomas, PhD, faculty at Cayuga Community College (pre-dissertation advisor Catherine Cornwell)  
William Aue, PhD, postdoc at Purdue University  
Asli Kilic, PhD, faculty at Middle Eastern Technical University

**Other  
Graduate  
Student  
Committees  
(2013-)**

Osung Seo, Master's  
Peter Casey (University of Newcastle, dissertation evaluator)  
Peter Katz (SU Dept of English, dissertation reader)  
Aditya Vempaty (SU Dept of Electrical Engineering & Computer Science, dissertation committee)

**Undergraduate  
Research  
Assistants  
(selected)**

Ilhana Mehanovic, RN student at University of Rochester  
Shanti Peckoo, PhD student at Syracuse University  
Katherine Walukevich, PhD student at Louisiana State University  
Cristina Salomao, MA from George Washington University  
Jessica Fontaine, MA from Pepperdine University  
Matt Novak, PhD student at University of Kansas  
Codina Haselmayer, PhD student at Ohio State University  
Arielle Port, MD, Chicago Medical School