

Curriculum Vitae

Catherine M. Arrington

Contact Information

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Education

<u>Institution</u>	<u>Major Field</u>	<u>Degree</u>	<u>Year</u>
Furman University	Psychology/Chemistry	BA/BS	1994
Wake Forest University	Psychology	MA	1996
Michigan State University	Cognitive Psychology	PhD	2002

Employment

2005-present Lehigh University, Assistant Professor of Psychology
2002-2005 Vanderbilt University, Post Doctoral Fellow
1996-1997 University of South Carolina-Spartanburg, Adjunct Lecturer

Research Grants and Awards

Pending National Institute of Mental Health (Percent rank: 9%)
(Grant 1 R03 MH082216-01A2)
2008 Paul J. Franz, Jr. and Class of 1968 Junior Faculty Fellowships
(Lehigh University internal grant \$2500)
2007 – 2008 Faculty Research Grant
(Lehigh University internal grant \$2500)
2006 Paul J. Franz, Jr. and Class of 1968 Junior Faculty Fellowships
(Lehigh University internal grant \$4000)
2003 – 2005 National Institute of Mental Health, National Research Service Award
(Grant F32 MH69046-01)

Refereed Publications

Arrington, C. M., & Rhodes, K. M.* (In press). Perceptual asymmetries influence task choice: The effect of lateralized presentation of hierarchical stimuli. *Laterality*.
Weaver, S. M., & Arrington, C. M. (In press). What's on your mind: The influence of the contents of working memory on choice. *Quarterly Journal of Experimental Psychology*.
Arrington, C. M., & Yates, M. M.* (2009). The role of attentional networks in voluntary task switching. *Psychonomic Bulletin & Review*, 16, 660-665.
Arrington, C. M. (2008). The effect of stimulus availability on task choice in voluntary task switching. *Memory & Cognition*, 36, 991-997.

- Arrington, C. M., Logan, G. D., & Schneider, D. W. (2007). Separating cue encoding from target processing in the explicit task-cuing procedure: Are there “true” task switch effects? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *33*, 484-502.
- Arrington, C. M., & Logan, G. D. (2005). Voluntary task switching: Chasing the elusive homunculus. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *31*, 683-702.
- Arrington, C. M., & Logan, G. D. (2004-b). Episodic and semantic components of the compound-stimulus strategy in the explicit-task cuing procedure. *Memory & Cognition*, *32*, 965-976.
- Arrington, C. M., & Logan, G. D. (2004-a). The cost of a voluntary task switch. *Psychological Science*, *15*, 610-615.
- Arrington, C. M., Altmann, E. M., & Carr, T. H. (2003). Tasks of a feather flock together: Similarity effects in task switching. *Memory & Cognition*, *31*, 781-789.
- Arrington, C. M., Carr, T. H., Mayer, A. R., & Rao, S. M. (2000). Neural mechanisms of visual attention: Object-based selection of a region in space. *Journal of Cognitive Neuroscience*, *12* (Suppl. 2), 106-117.
- Weldon, M. K., Arrington, C. M., Runnels, P. L., & Wheeler, J. F. (1997). Selectivity enhancement in free-zone capillary electrophoresis using conventional ion-pairing chemistry. *Journal of Chromatography A*, *758*, 293-302.

Book Chapter

- Arrington, C. M., & Carr, T. H. (2003). Attention. In B. S. Fogel, R. B. Schiffer, & S. M. Rao (Eds.), *Neuropsychiatry*, (2nd ed.) pp. 404-425. Philadelphia, PA: Lipincott, Williams, & Wilkins.

Published Abstracts

- Rao, S. M., Arrington, C. M., Mayer, A. R., & Carr, T. H. (2000). Neural systems for reorienting visual attention when targets appear at unexpected locations. *NeuroImage*, *11*:5, S4.
- Arrington, C. M., Rao, S. M., Mayer, A. R., & Carr, T. H. (1999). Brain mechanisms underlying object-based attention: How do we select a bounded region of space? *Journal of Cognitive Neuroscience*, *Supplement S*, 68.

Submitted Manuscripts

- Arrington, C. M., Weaver, S. M., & Pauker, R. L.* *Stimulus priming in task choice during voluntary task switching*. Under revision for JEP:LMC.
- Butler, K. M., Arrington, C. M., & Weywadt, C. *Relationship between working memory capacity and task choice in a multitask environment*. Under revision for M&C.
- Arrington, C. M., Stuart, J. A.*, & Weaver, S. M. *Mind wandering during multitask performance*. Manuscript in revision.

Manuscripts in Preparation

- Arrington, C. M. *Voluntary task switching: Task selection and task readiness*. Manuscript in preparation.
- Arrington, C. M. *Choosing the easy way: The effects of difficulty and similarity on task choice*. Manuscript in preparation.

- Arrington, C. M., & Weaver, S. M. *Conflict-control models predict task performance but not task choice in voluntary task switching*. Manuscript in preparation.
- Ivanoff, J., Wallace, G., Arrington, C. M., & Gotler, A. *On the information processing dynamics of task-switching and cue-switching: A speed-accuracy tradeoff analysis of the explicit task-cuing procedure*. Manuscript in preparation.

Invited Talks

- Arrington, C. M. (2009, March). Voluntary behavior in multitask environments. Neuropsychology & Neuroscience Laboratory, Kessler Medical Rehabilitation Research and Education Center, New Jersey.
- Arrington, C. M. (2009, February). Voluntary behavior in multitask environments. Cognitive Group Seminar, Pennsylvania State University, State College, PA.
- Arrington, C. M. (2008, March). Hemispheric differences in attention to objects. Brain Awareness Week Speaker, Department of Psychology, Moravian College, Bethlehem, PA.
- Arrington, C. M. (2008, March). Choices, choices: Factors influencing task choice in the voluntary task switching paradigm. Cognitive Neuroscience Division, Columbia University Hospital, New York, NY.
- Arrington, C. M. (2007, September). Hemispheric differences in attention to objects. Colloquium, Department of Biological Sciences, Lehigh University, Bethlehem, PA.
- Arrington, C. M. (2004, March). Voluntary task switching: Chasing the clever homunculus. Cognitive Seminar Series, Department of Psychology, University of New Mexico; Albuquerque, NM.
- Arrington, C. M. (2003, December). Executive control of perception, thought, and action: Task switching and task similarity in multitask environments. Colloquium, Department of Psychology, Wake Forest University; Winston-Salem, NC.
- Arrington, C. M. (2000, November). Neural mechanisms of visual attention: An fMRI study. Colloquium, Department of Psychology, Furman University; Greenville, SC.

Professional Presentations

- Arrington C. M., & Weaver, S. M. (2009, May). Eliciting voluntary behavior in multitask environments: Choosing what to do next. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Weaver, S. M., & Arrington, C. M. (2009, March). What's on your mind: The influence of the contents of working memory on choice. Paper presented at the annual meeting of the Eastern Psychological Association, Pittsburgh, PA.
- Ignarri, C., & Arrington, C. M. (2009, March). Implicit egalitarian goals reduce race bias in voluntary task switching. Paper presented at the annual meeting of the Eastern Psychological Association, Pittsburgh, PA.
- Arrington, C. M., Stuart, J. A.*, & Weaver, S. M. (2009, March). Multitasking and mind wandering. Paper presented at the annual meeting of the Eastern Psychological Association, Pittsburgh, PA.
- Arrington, C. M., & Yates, M. M.* (2008, November). The role of attention networks in task selection and task performance in voluntary task switching. Paper presented at the 49th annual meeting of the Psychonomic Society, Chicago, IL.

- Ivanoff, J., Gendron, M. A., & Arrington, C. M. (2008, November). The temporal dynamics of a voluntary task-switch. Poster presented at the 49th annual meeting of the Psychonomic Society, Chicago, IL.
- Arrington, C. M. (2008, August). Eliciting voluntary behavior in multitask environments. Paper presented at the 14th annual meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.
- Arrington, C. M., & Radetich, K. B.* (2008, March). Choosing the easy way: The effect of task difficulty on task choice. Paper presented at the annual meeting of the Eastern Psychological Association, Boston, MA.
- Weaver, S. M., & Arrington, C. M. (2008, March). How high working memory loads affect task choice: The influence of the availability heuristic in voluntary task switching. Paper presented at the annual meeting of the Eastern Psychological Association, Boston, MA.
- Arrington, C. M., & Pauker, R. L.* (2007, November). Stimulus-task binding in voluntary task switching: The role of prior experience in task choice. Paper presented at the 48th annual meeting of the Psychonomic Society, Long Beach, CA.
- Butler, K. M., Weywadt, C., & Arrington, C. M. (2007, November). Is voluntary task switching influenced by individual differences in executive control? Poster presented at the 48th annual meeting of the Psychonomic Society, Long Beach, CA.
- Weaver, S. M., & Arrington, C. M. (2007, November). The effect of working memory load on task choice in voluntary task switching. Poster presented at the 48th annual meeting of the Psychonomic Society, Long Beach, CA.
- Rhodes, K. M.*, & Arrington, C. M. (2007, March). The effect of task processing on task choice in voluntary task switching: Evidence from lateralized presentation of local/global stimuli. Paper presented at the annual meeting of the Eastern Psychological Association, Philadelphia, PA.
- Arrington, C. M. (2006, November). The effect of external stimulus availability of task choice in voluntary task switching. Poster presented at the 47th annual meeting of the Psychonomic Society, Houston, TX.
- Arrington, C. M. (2006, August). Choices, choices: Factors influencing task choice in the voluntary task switching paradigm. Paper presented at the 12th annual meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.
- Arrington, C. M., Logan, G. D., & Schneider, D. W. (2005, November). Separating cue encoding from task performance in task switching. Poster presented at the 46th annual meeting of the Psychonomic Society, Toronto, ON.
- Ivanoff, J., Arrington, C. M., & Gotler, A. (2005, November). Do errors betray executive control in task switching? Poster presented at the 46th annual meeting of the Psychonomic Society, Toronto, ON.
- Arrington, C. M. (2004, November). Choosing the easy way: The effect of task similarity on task choice. Poster presented at the 12th annual workshop on Object, Perception, Attention, & Memory, Minneapolis, MN.
- Arrington, C. M., & Logan, G. D. (2004, November). Identifying components of switch costs in the voluntary task switching procedure. Poster presented at the 45th annual meeting of the Psychonomic Society, Minneapolis, MN.
- Arrington, C. M., & Logan, G. D. (2004, July). Voluntary task switching: Chasing the clever homunculus. Paper presented at the 10th annual meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.
- Arrington, C. M., & Logan, G. D. (2004, February). Voluntary task switching: Chasing the clever homunculus. Paper presented at the annual meeting of the North Carolina Cognition Group, Raleigh, NC.

- Arrington, C. M., & Logan, G. D. (2003, November). Costs of a voluntary switch between tasks. Poster presented at the 44th annual meeting of the Psychonomic Society, Vancouver, BC.
- Arrington, C. M., & Logan, G. D. (2003, November). Task switching and task similarity in spatial relations judgments. Poster presented at the 11th annual workshop on Object, Perception, Attention, & Memory, Vancouver, BC.
- Arrington, C. M., & Logan, G. D. (2003, February). Cue encoding versus set switching in the explicit task cueing procedure. Paper presented at the annual meeting of the North Carolina Cognition Group, Durham, NC.
- Arrington, C. M., Altmann, E. M., & Carr, T. H. (2002, November). Explorations in task space: Shared components of the task set facilitate switching from one task to another. Paper presented at the 43rd annual meeting of the Psychonomic Society, Kansas City, MO.
- Arrington, C. M., Carr, L. A., Wieth, M. B., Welch, D. M., Morash, V., Burns, B., & Carr, T. H. (2002). Solution priming in the remote associates task. Poster presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Arrington, C. M., Altmann, E. M., & Carr, T. H. (2001, November). Task switching and task similarity: Old-task inhibition and new-task facilitation. Poster presented at the 42nd annual meeting of the Psychonomic Society, Orlando, FL.
- Arrington, C. M., & Carr, T. H. (2001, May). The effects of grouping and spatial organization on attentional deployment in a flanker task. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Arrington, C. M., Dagenbach, D., McCartan, M. K., & Carr, T. H. (2000, November). The reliability of object-based attention following peripheral and central cues. Poster presented at the 41st annual meeting of the Psychonomic Society, New Orleans, LA.
- Rao, S. M., Arrington, C. M., Mayer, A. R., & Carr, T. H. (2000, June). Neural systems for reorienting visual attention when targets appear at unexpected locations. Poster presented at the annual Human Brain Mapping Conference, San Antonio, TX.
- Arrington, C. M., Mayer, A. R., Carr, T. H., & Rao, S. M. (2000, February). Neural mechanisms of attention: Deploying and reorienting attention in space. Paper presented at the annual meeting of the North Carolina Cognition Group, Winston-Salem, NC.
- Arrington, C. M., Rao, S. M., Mayer, A. R., & Carr, T. H. (1999, November). Brain basis of reorienting visual attention when targets appear in unexpected locations. Paper presented at the 40th annual meeting of the Psychonomic Society, Los Angeles, CA.
- Carr, T. H., & Arrington, C. M. (1999, July). Functional neuroimaging of attention and motor control: Identifying brain systems that support cognitive processes. Paper presented at the meeting of the Cognitive Science Association for Interdisciplinary Learning, Hood River, OR.
- Arrington, C. M., Rao, S. M., Mayer, A. R., & Carr, T. H. (1999, May). Brain systems underlying space-based and object-based selective attention. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Arrington, C. M., Rao, S. M., Mayer, A. R., & Carr, T. H. (1999, April). Brain mechanisms underlying object-based attention: How do we select a bounded region of space? Poster presented at the annual meeting of the Cognitive Neuroscience Society, Washington, DC.
- Neely, C. A., Dagenbach, D., Thompson, R., & Carr, T. H. (1998, November). Object-based visual attention: The spread of attention within objects and the movement of attention between object. Paper presented at the 39th annual meeting of the Psychonomic Society, Dallas, TX.
- Dagenbach, D., Goolsby, B., Neely, C. A., Dudziak, K. M. (November, 1997). Further studies of attention to space and objects with endogenous cuing. Poster presented at the 38th annual meeting of the Psychonomic Society, Philadelphia, PA.

- Neely, C. A., & Dagenbach, D. (November, 1996). Exogenous and endogenous cuing: Spatial versus object-based visual attention. Poster presented at the 37th annual meeting of the Psychonomic Society, Chicago, IL.
- Neely, C. A., & Dagenbach, D. (March, 1996). Exogenous and endogenous components of central cues in visual attention? Poster presented at the annual meeting of the Southeastern Psychological Association, Norfolk, VA.
- Hart, L., Dagenbach, D., & Neely, C. A. (February, 1996). Space-based v. object-based attention at different SOAs. Poster presented at the annual meeting of the North Carolina Cognition Group, Greensboro, NC.
- Neely, C. A. (February, 1996). The effect of levels of processing on implicit and explicit memory tests. Poster presented at the annual meeting of the North Carolina Cognition Group, Greensboro, NC.
- Neely, C. A., & Dagenbach, D. (February, 1995). A reconsideration of endogenous and exogenous attentional components of central cueing in visual search. Paper presented at the annual meeting of the North Carolina Cognition Group, Raleigh, NC.
- Arrington, C. M. (March, 1993). Improving resolution in the separation of neurotransmitters using free zone capillary electrophoresis with ion-pairing. Paper presented at the 7th Annual National Conference for Undergraduate Research, Salt Lake City, UT.

Courses Taught

Lehigh University

- Statistical Analysis of Behavioral Data (undergraduate)
- Mind and Brain (undergraduate)
- Attention and Attentional Failure (undergraduate)
- Cognitive Psychology (graduate)
- Cognitive Neuroscience Techniques (graduate)

Michigan State University

- Cognitive Psychology (undergraduate)

University of South Carolina-Spartanburg

- Introductory Psychology (undergraduate)

Research Advising

Undergraduate:

- 2005-2006 Kim Rhodes, Psychology honors thesis supervisor, *Do External Stimuli Affect Voluntary Task Switching?*
- 2006-2007 Stefanie Forlenza, Psychology honors thesis supervisor, *A New Look at Product Placement*
- 2006-2007 Kathleen Radetich, Psychology senior project supervisor, *The Effect of Task Difficulty on Task Choice in Voluntary Task Switching*
- 2008 Melissa Yates, Psychology honors thesis supervisor, *Nothing in a Group Can Be Average. Or Can It? Member-to-group Comparisons Involving Basic Perceptual Stimuli with Standards of Varying Strength*
- 2008 Jessica Stuart, APS/Psi Chi Summer research fellow, (\$5000 total award), *Mind Wandering During Multitask Performance*

2008-2009 Jessica Stuart, Psychology honors thesis supervisor, *The Impact of Anxiety on Task Choice*
2008-2009 Allison White, Eckert Scholar/Cognitive Science thesis supervisor, *How Music Affects the Way We Think: The Link Between Musical Training and Task Switching*
2009-2010 Rachel Pauker, *in progress*

Graduate:

2005-2007 Ben Fuller, Master's thesis committee member
2006-2008 Starla Weaver, Master's thesis advisor, *What's on Your Mind: The Influence of the Contents of Working Memory on Choice*
2007-2008 Mike Paquet, Master's thesis committee member
2008-2009 Huichun Zhu, Pre-dissertation project committee member
2008-present Jordan Knicely, Master's thesis committee member
2009-present Starla Weaver, Dissertation advisor

University Service

University:

Institutional Review Board, member (2009-present)

Interdisciplinary programs:

Cognitive Science Supervisory Committee, member (2006-present)

Departmental:

Graduate Committee, member (2006-present)
Cognitive and Language Group, coordinator (2006-present)
Library Liaison (2007-2008)
LVAIC Undergraduate Psychology Conference, co-organizer (2008)
Cognitive Search Committee, member (2008)
Colloquium Coordinator (2008)

Professional Service

Quarterly Journal of Experimental Psychology, Associate Editor (2009-present)
Object Perception, Attention, and Memory Workshop, Co-organizer (2006-2007)
Eastern Psychological Association, Symposium Organizer (2009)

Ad hoc reviewer journals: *Cerebral Cortex; Cognition; Cognitive Psychology; Cortex; Emotion; European Journal of Cognitive Psychology; Experimental Psychology; Human Brain Mapping; Journal of Cognitive Neuroscience; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human, Perception, and Performance; Journal of Experimental Psychology: Learning, Memory, and Cognition; Memory & Cognition; Perception & Psychophysics; Psychological Science; Psychology & Aging; Psychonomic Bulletin & Review; Quarterly Journal of Experimental Psychology; Visual Cognition*
Ad hoc reviewer funding agency: *National Science Foundation*

* Denotes Lehigh University undergraduate