

# Christopher B. Mayhorn

Curriculum Vitae- August 2019

## PERSONAL INFORMATION:

North Carolina State University  
Psychology Department  
Raleigh, NC  
(919) 513-4856

313 Brightling Way  
Holly Springs, NC 27540  
(919) 363-5281

Email: Chris\_Mayhorn@ncsu.edu  
Fax: (919) 515-1716

Born: Washington, IN

## EDUCATION:

1988-1991     The Citadel, Charleston, S.C.  
                  B.A., Psychology

1992-1995     The University of Georgia, Athens, GA  
                  M.S., Psychology  
                  Thesis: The effects of cognitive and psychosocial factors on prospective  
                  memory tasks performed in laboratory and naturalistic settings.  
                  (Chairperson: Denise C. Park, Ph.D.)

1993-1995     The University of Georgia, Athens, GA  
                  Graduate Certificate In Gerontology: Research  
                  Track Specialization  
                  (Chairperson: Roger W. Morrell, Ph.D.)

1996-1999     The University of Georgia, Athens, GA  
                  Major: Cognitive/Experimental Psychology  
                  Doctor of Philosophy  
                  Dissertation: Input and output monitoring in young and older adults.  
                  (Chairperson: Richard L. Marsh, Ph.D.)

2000-2002     Georgia Institute of Technology  
                  Postdoctoral Fellowship  
                  (Under the direction of Wendy Rogers, Ph.D. and Arthur Fisk, Ph.D.)

**HONORS AND DISTINCTIONS:**

- \* Fellow, Human Factors and Ergonomics Society (2016-present)
- \* ACE Leadership Academy for Department Chairs (October 2017)
- \* University Faculty Scholar (2014-2019)—one of eighteen faculty selected from NCSU
- \* Nominated for the Sigma Xi Faculty Research Award (2007)
- \* Nominated for the Earl Alluisi Early Career Award for APA, Division 21 (2007)
- \* Outstanding Junior Faculty Award (2006), College of Humanities and Social Sciences, North Carolina State University.
- \* National Science Foundation Sponsored Fellowship (2003-2005) titled “Enabling the Next Generation of Hazard Researchers.”
- \* Sigma Xi, Georgia Institute of Technology
- \* Herbert Zimmer Scholar in Psychology (1998-1999)- This honor is awarded in recognition of outstanding research accomplishments and potential for a research career in psychology
- \* SPRY Foundation Scholarship, 1999 .
- \* University of Georgia Gerontology Center Seed Grant for Student Travel, 1998.
- \* Travel Award for Excellence in Research, Southeastern Center for Applied Cognitive Aging, 1995.
- \* Psi Chi, The University of Georgia.
- \* Cum Laude graduate, The Citadel.
- \* Phi Kappa Phi, The Citadel.

**GRANTS (Funded)**

Boettcher, W., Mayer, R., Keyton, J., & **Mayhorn, C. B.** Convey Leader 2.0. Funded by National Security Agency. Total costs including direct and indirect costs of \$85,000. January 16, 2017-December 31, 2017.

Feng, J. & **Mayhorn, C. B.**, Enhancing the detection of weak but critical signals of threats in intelligence analysis. Funded by National Security Agency. Total costs including direct and indirect costs of \$100,000. January 16, 2017-December 31, 2017.

- Mayhorn, C.B.**, Remembering what you have done: How aging affects output monitoring. Seedgrant funded by the Center on Aging and Cognition: Health, Education, and Training. Direct costs of \$3,000. March 1, 2000-March 1, 2002.
- Mayhorn, C.B.**, Reviewing website usability guidelines for older adults: An empirical approach. Seedgrant funded by the Georgia Gerontology Consortium. Direct costs of \$2,497. August 1, 2001- August 1, 2002.
- Mayhorn, C. B.**, Forget me not: Enhancing older adults' medication adherence with personal digital assistants (PDAs). Funded by the Faculty Research and Professional Development Program at NCSU. Direct costs of \$5000. July 1, 2003-June 30, 2004.
- Mayhorn, C. B.**, Older adults and OTC nonprescription drug label comprehension: A comparison of older and newer label formats. Funded by the Drug Information Association Foundation. Direct costs of \$19,452. September, 2004-September 2006.
- Mayhorn, C. B.**, Older adult decision making during hurricane hazard preparation: To evacuate or shelter-in-place. Funded by the National Science Foundation. Total costs including direct and indirect costs of \$29,727. November, 2004-November, 2005.
- Mayhorn, C. B.**, Research Experiences for Undergraduates. Funded by the National Science Foundation. Total costs including direct and indirect costs of \$6,000. November, 2004-November, 2005.
- Mayhorn, C. B.**, Gillan, D., Converse, S., & Faber, B., Improving information resources by studying academic user behavior. Funded by SAS. Total costs including direct and indirect costs of \$20,000. January, 2008-January, 2009.
- Mayhorn, C. B.**, King, R. E. A survey of the users and customers of the specialized furniture carriers division of the American Home Furnishing Association. Funded by the NCSU Furniture Manufacturing and Management Center. Total costs including direct and indirect costs of \$8000. October, 2011-August 2012.
- Mayhorn, C. B.** & Murphy-Hill, E. Developing a user profile to predict phishing susceptibility and security technology acceptance. Funded by National Security Agency/Army Research Office. Total costs including direct and indirect costs of \$369,522. January, 2012-January, 2014.
- Mayhorn, C. B.** & Murphy-Hill, E. Warning of Phishing Attacks: Supporting Human Information Processing, Identifying Phishing Deception Indicators, and Reducing Vulnerability. Funded by National Security Agency/Army Research Office. Total costs including direct and indirect costs of \$300,000. April, 2014-May, 2017.
- Mayhorn, C. B.** DO2--Using task analysis to understand the cognitive processes and activities of intelligence analysts. Funded by National Security Agency. Total costs including direct and indirect costs of \$100,000. January 16, 2014-December 31, 2014.
- Mayhorn, C. B.** DO5. Funded by National Security Agency. Total costs including direct and indirect costs of \$53,284. January 16, 2015-December 31, 2015.
- Mayhorn, C. B.** DO6. Funded by National Security Agency. Total costs including direct and indirect costs of \$100,000. January 16, 2016-December 31, 2016.
- Mayhorn, C. B.** DO7. Funded by National Security Agency. Total costs including direct and indirect costs of \$100,000. January 16, 2017-December 31, 2017.
- McLaughlin, A.C., & **Mayhorn, C. B.** Qualitative analysis of farm worker risk behavior with tractors. Funded by NIOSH subcontract from East Carolina University. Total costs including direct and indirect costs of \$9972. March, 2008-September, 2008.

## GRANTS (Service as Research Consultant)

Boyington, D. (Thinking Media, Inc.), PictureRx: An Intervention to Reduce Latino Health Disparities. Funded by NIH/NCMHD.

Goldsworthy, R. (The Academic Edge, Inc.), Teratogen Warnings and Educational Media. Funded by the National Center on Birth Defects and Developmental Disabilities (NCBDDD), a part of the Centers for Disease Control and Prevention (CDC).

Rebelo, F.( Universidade Técnica de Lisboa, Portugal), Future Safety Warnings: Virtual Reality in the Study of Technology-based Warnings. Funded by the Portuguese Science Foundation.

## GRANTS (In Preparation and Submitted)

**Mayhorn, C. B., & Crowley, M.** The Open Community Project: A Human-Technology Partnership for Augmenting Community Resiliency in Natural Disasters. Submitted to the National Science Foundation.

Carey, N., Bullock, K, & **Mayhorn, C.B.**, Improving early detection of infection in nursing home residents: Implementation of the Early Detection of Infection Scale (EDIS) in UK and US nursing homes. Submitted to University Global Partnership Network—collaboration with the University of Surrey.

**Mayhorn, C. B.**, Goldsworthy, R. C., Wogalter, M. S., & Meade, A. W. Medication sharing in older adults. R01 in preparation for resubmission to the National Institutes of Health.

Rebelo, F.( Universidade Técnica de Lisboa, Portugal), Are we ready for new technology-based warnings?—Using VR to understand age-related differences on compliance with technology-based warnings. Submitted to the Portuguese Science Foundation.

## PROFESSIONAL AFFILIATIONS:

\* American Association for the Advancement of Science

\* American Psychological Association (Member)  
 Division 21: Engineering and Military Psychology  
 Division 20: Psychology and Aging  
 Division 3: Experimental Psychology

\* International Society of Gerontechnology (Member)

\* Usability Professionals Association (Member)

\* Human Factors and Ergonomics Society (Fellow)  
 Aging Technical Group (TG)  
 Children's Issues TG (founding member)  
 Safety TG  
 Internet TG  
 Forensics TG  
 Education TG

\* Georgia Tech Graphics, Visualization, and Usability Center-Faculty Affiliate

## PROFESSIONAL EXPERIENCE:

2017-Present Department Head, Dept. of Psychology, North Carolina State University, Raleigh, N.C.

Duties: Manage the budget for the department and Psychoeducational Clinic. Lead the staff and administrative team to provide services to our 30 faculty, 130+ graduate students in five areas of PhD concentration, and our 750+ undergraduate students. Liaise with the Dean and staff of the College of Humanities and Social Sciences. Coordinate activities with the Psychoeducational Clinic

2013-Present Professor of Psychology, North Carolina State University, Raleigh, N.C.

Duties: Conduct HF/E and aging research, seek external funding, supervise graduate and undergraduate students, prepare manuscripts for publication, serve on committees, and teach courses in the psychology department.

2004-2014 Area Coordinator of the Human Factors and Applied Cognition Graduate Program, North Carolina State University, Raleigh, N.C.

Duties: Oversee the graduate curricula for MS and PhD-level graduate students within the HF/E program located in the Department of Psychology at NCSU. Each year, current students were evaluated with regard to progress-towards-degree and admissions decisions were made for applicants to the program. In cooperation with HFES Program Accreditation Committee, an application was submitted and accepted such that the NCSU program has been accredited for the time period February 2012-February 2018.

2007-2013 Associate Professor (promoted and tenured early) of Psychology, North Carolina State University, Raleigh, N.C.

Duties: Conduct HF/E and aging research, seek external funding, supervise graduate and undergraduate students, prepare manuscripts for publication, serve on committees, and teach courses in the psychology department.

2002-2007 Assistant Professor of Psychology, North Carolina State University, Raleigh, N.C.

Duties: Conduct HF/E and aging research, supervise graduate and undergraduate students, prepare manuscripts for publication, serve on committees, and teach courses in the psychology department.

2000-Present Research Consultant, GeroTech Corporation, Washington, D.C.

Duties: Usability design, focus group administration, data analysis, survey design and development, act as liaison with programmer to develop and manage database, and prepare manuscripts for publication.

Supervisors: Barbara Holt and Roger W. Morrell, Ph.Ds.

1999 to 2000 Lead Research Specialist, Department of Geriatric Medicine, Emory University, Atlanta, GA

Duties: Supervise multidisciplinary data collection team, perform data analysis, and prepare manuscripts for publication.  
Supervisor: Joseph Ouslander, M.D.

- 1999 to 1999 Research Consultant, Gerontology Center, The University of Georgia, Athens, GA  
Duties: Perform data analysis, manage the database, develop stimuli, supervise data collection, and prepare manuscripts for publication.  
Supervisor: Leonard Poon, Ph.D.
- 1998 to 1999 Course Instructor, Department of Psychology, The University of Georgia, Athens, GA  
Duties: Classroom instructor for undergraduate courses in research design and statistics. Prepare syllabus, lecture, supervise laboratory section, and administer assignments and exams.  
Faculty Mentors: Richard L. Marsh and Joseph D. Allen, Ph.Ds.
- 1996 to 1998 Research Consultant, The Center for Applied Cognitive Aging Research, The University of Michigan, Ann Arbor, MI.  
Duties: Perform data analysis, manage the database, develop stimuli, supervise data collection, and prepare manuscripts for publication.  
Supervisor: Roger W. Morrell, Ph.D.
- 1994 to 1996 Systems Operator, The Southeastern Center for Applied Cognitive Aging, Athens, GA.  
Duties: Manage the electronic computer bulletin board system, ElderComm.  
Supervisor: Roger W. Morrell, Ph.D.
- 1992 to 1995 Research Assistant, The Gerontology Center, The University of Georgia, Athens, GA.  
Duties: Perform data analysis and collect data.  
Supervisor: Denise C. Park, Ph.D.

## EDITORIAL/REVIEWING ACTIVITIES

### Editorial Boards:

Consulting Editor, *Cognitive Technology*, 11/05-present; Editor: Richard Walker  
Member, Editorial Board of *Applied Ergonomics*, 7/15-present; Editor: Pascale Carayon  
Member, Editorial Board of *Journal of Safety Research*, 8/14-present; Editor: Thomas Planek  
Member, Editorial Board of *Human Factors*, 11/13-present; Editor: Pat Delucia  
Member, Editorial Board of *Open Ergonomics Journal*, 1/08-present; Editorial Director: Matthew Honan  
Co-Editor (with Mike Wogalter) of a Special Warnings Issue of *Human Factors and Ergonomics in Manufacturing & Service Industries*, 10/08-10/10.  
Co-Editor (with Mike Wogalter and Ken Laughery) of a Special Warnings Issue of *Applied Ergonomics*, 1/12-5/14.

Co-Editor (with Mike Wogalter) of a Special Forensic Human Factors Issue of *Theoretical Issues in Ergonomic Science*, 10/18-present.

Advisory Board Member, *Psychology in the Fastlane*, ByPass Publishing, 10/10-present.

Ad Hoc Manuscript Reviewer:

*Ageing and Society*

*American Psychologist*

*American Journal of Preventative Medicine*

*Applied Ergonomics*

*Psychology and Aging*

*Human Factors*

*Ergonomics*

*Behaviour and Information Technology*

*Journal of Cognitive Engineering and Decision Making*

*Human Factors and Ergonomics in Manufacturing & Service Industries*

*Ergonomics in Design*

*The Journal of Experimental Psychology: Applied*

*The Journal of Gerontology: Psychological Sciences*

*Association for Computing Machinery: Transactions on Computer-Human Interaction*

*Association for Computing Machinery: Transactions on Accessible Computing*

*American Journal of Psychology*

*Aging Clinical and Experimental Research*

*Climatic Change*

*Computers in Human Behavior*

*Environment and Behavior*

*IEEE—Transactions on Information Forensics and Security*

*International Journal of Disaster Risk Reduction*

*International Journal of Psychology*

*International Journal of Human-Computer Studies*

*International Journal of Industrial Ergonomics*

*International Journal of School and Cognitive Psychology*

*Interacting with Computers*

*Journal of Usability Studies*

*Journal of Applied Gerontology*

*Journal of Human Computer Interaction*

*Journal of Information Security and Applications*

*Journal of Computer-Mediated Communication*

*Journal of Contingencies and Crisis Management*

*Journal of General Internal Medicine*

*Journal of Experimental Child Psychology*

*Journal of Network and Computer Applications*

*Open Ergonomics Journal*

*Gerontechnology*

*Patient Education and Counseling*

*Perceptual & Motor Skills*

*Psychological Reports*

*Safety Science*

*Risk Analysis*

*Rural Sociology*

*The Gerontologist*

*Transactions on Systems, Man, and Cybernetics—Part A: Systems and Humans*

*Theoretical Issues in Ergonomics Science*

*Weather, Climate, and Society*

American Psychological Association

*Handbook of Human-Systems Integration*

Thomson-Wadsworth Textbooks

Lawrence Erlbaum Associates

*Handbook of Warnings*

Wiley Textbooks

*Handbook of Technology Management*

ByPass publishing

*Psychology in the Fastlane*

#### Ad Hoc Annual Conference Reviewer:

Southeastern Psychological Association, 2004-present

Human Factors and Ergonomics Society, 2002-present

International Ergonomics Association, 2005-present.

Computer Human Interaction, 2007-present.

APA—Technology, Mind, and Society, 2017-present.

### **PROFESSIONAL SERVICE**

#### International Service:

Promotion case reviewer, University of Sharjah, United Arab Emirates, 2019

Guest Professor, Indian Institute of Technology Indore, funded by the Global Initiative for Academic Networks (GIAN), Government of India, likely Spring 2019.

Grant review: National Science Centre, Poland, May 14, 2018.

Attendee, Designing Information for Public Understanding, Portcullis House, United Kingdom Parliament, February 5, 2018.

Member, International Advising Committee, Humanizing Work and Work Environment Conference, The Aligarh Muslim University, India, 2016-present.

Member, International Advisory Board, Centre for Research in Architecture, Urbanism, and Design (CIAUD), Faculty of Architecture, University of Lisbon, 2014-present.

Member, External Advisory Committee for the PhD Program, UNIDCOM/IADE, IADE-- Instituto de Arte, Design e Empresa - Universitário, Lisbon, Portugal.

Member, Scientific Committee of the UNIDCOM / IADE's 7th and 8<sup>th</sup> International Conference's – Senses & Sensibility in Florianópolis: Design, Marketing, Advertising, Photography and Visual Culture to be held at UFSC - Florianópolis, Santa Catarina Brazil, Northern Fall/Southern Spring, 2013- present.

Member, Board of Thesis Examiners at Indian Institute of Technology, Guwahati, Assam, India., 2013-present.

Member, Thesis Examiner Board at Swinburne University of Technology, Swinburne, Australia, 2015-present.



National Service:

Promotion Case Reviewer, Rensselaer Polytechnic University, 2018  
 Promotion Case Reviewer, University of Houston—Clear Lake, 2018  
 Promotion Case Reviewer, Clemson University, Department of Psychology, 2017.  
 Promotion Case Reviewer, Michigan State University, School of Packaging, 2015.  
 Promotion Case Reviewer, George Mason University, Department of Psychology, 2016.  
 Tenure Case Reviewer, Clemson University, Department of Psychology, 2011.  
 Invited Speaker, NOAA/NSF Workshop titled “Weather Ready Nation: Science Imperatives for Severe Thunderstorm Research, Birmingham, AL, April 2012.  
 Invited Speaker, Fire Protection Research Foundation Workshop on Mass Notification of Vulnerable Populations, Phoenix, AZ, March 2012.  
 Invited Speaker, National Academy of Sciences’ Workshop on Public Response to Alerts and Warnings on Mobile Devices: Current Knowledge and Research Needs, 2010.  
 Invited Contributor, U.S. Department of Homeland Security’s “Lessons Learned and Information Sharing System (LLIS.gov)”, provided information regarding the mass evacuations of the elderly special needs population, 2006.  
 Member, Program Committee of HotSoS (Annual Symposium and Bootcamp on the Science of Security), 2013-present.  
 Chair, National Membership Committee of the Human Factors and Ergonomics Society (HFES), 2005-2008  
 Chair, HFES Technical Program Committee (TPC), 2011-2018  
 Member, HFES Paul M. Fitts Education Award Selection Subcommittee, 2017-present.  
 Member, Meetings Policy Committee, 2014-present  
 President, Carolinas Chapter of HFES, 2008-2010; 2014-2015  
 Chair, Council of HFES Technical Groups, 2007-2008.  
 Chair, Student Forum of TPC for annual meeting of HFES, 2009-2011.  
 Member-at-Large, Executive Committee of the Council of HFES Technical Groups, 2007-2008.  
 Member, Chapter Affairs Committee of HFES, 2009-present.  
 Member, Government Relations Committee of HFES, 2008-2012.  
 Member, National Subcommittee for the Local Chapter Award of HFES, 2005-2009  
 Director, Carolina Chapter of HFES, 2005-2007, 2011-present  
 Aging Technical Group of HFES:  
     Chair of Aging TG: 2005-2007  
     Secretary/Treasurer, 2004-2005  
     Program Chair, 2005, Orlando Conference  
     Co-Editor for Newsletter, 2002-2003  
     Website Development Team  
 Safety Technical Group of HFES:  
     Secretary/Treasurer, 2012-2014  
 Faculty Advisor to Student Chapter of HFES at North Carolina State University, 2002-present.  
 Interactionary Judge for 2005 World Usability Day, Research Triangle Park.  
 Member, National Membership Committee of Sigma Xi, 2010-present.  
 Judge of Student Posters, Sigma Xi Annual Meeting, 2010-present.

Grant Reviewer

NSF—Future of Work at the Human Technology Frontier (FW-HTF)---(2018, 2019)  
 NSF---Partnerships for Innovation: Building Innovation Capacity (PFI:BIC): Service For the Disabled and Elderly---(2017)  
 NSF—CHS Small Panel—LS in Information & Intelligent Systems Division (IIS)---(2016)  
 NSF--Partnerships for Innovation: Building Innovation Capacity (PFI:BIC): Human Learning, Cognition, Behavior, Performance---(2016)  
 NSF—Open Research Area for the Social Sciences (2013)  
 NOAA Grants Competition (2012)  
 NIA/NIH 2009/10 ZAG1 ZIJ-9 (O8) ARRA Grand Opportunity (GO) Program (2009)  
 NIMH/NIH ZMH1 ERB-N 02 S Minority Research Infrastructure Program (2006)  
 NIMH/NIH ZMH1 ERB-C 02 Minority Research Infrastructure Program (2005)  
 Center on Aging and Cognition: Health, Education, and Training Seed Grant Program

University Service:

Treasurer, Phi Kappa Phi, NC State Chapter, 2019-present.  
 Member, Search Committee for the Director, Center for Family and Community Engagement (CFACE), 2017-2018.  
 Co-Chair (with Dr. Chris Anson), CHASS Nomination Committee for University Scholars, 2016-present.  
 Member, University Reappointment, Promotion, and Tenure Committee, 2016-present.  
 Chair, CHASS Post-tenure Review Committee, 2016-2017.  
 Member, CHASS College Advisory Committee for University Scholars Program, 2015-present  
 Chair, CHASS Reappointment, Promotion, and Tenure Committee, 2015-2016.  
 Member, CHASS Reappointment, Promotion, Tenure Committee, 2014-2016.  
 Member, Coordinating Committee for the Critical and Creative Thinking Quality Evaluation Plan (associated with the NCSU re-accreditation by Southern Association of Colleges and Schools), 2012-present.  
 Member, Advisory Committee for Provost's Cluster Hire Initiative in Digital Transformation of Education, 2012-present.  
 Member, University Budget Advisory Committee, 2011-2013  
 Member, University Standing Committee on Courses and Curricula, 2008-2011  
 CHASS Liaison to SAS Corporation, 2007-2010  
 CHASS Outstanding Junior Faculty Award Selection Committee, 2007-2009  
 Connecting in North Carolina Tour Participant, one of four chosen to represent the College of Humanities and Social Sciences, 2006  
 College of Education Building Equipment, Space, and Safety Committee, Member 2004-2005  
 College of Education Computer and Technology Committee, Member 2006-present  
 Cognitive Science Advisory Committee, Member 2004-present  
 Psychology Department Head Search, Member 2005-2006  
 Invited Address to the NCSU Board of Trustees to describe funded research within CHASS, 2005

Departmental Service:

Departmental Graduate Fellowship Award Committee, Member 2016-present.  
 Area Coordinator, Human Factors and Applied Cognition Psychology Program, 2004-2005, 2007-2014.  
 Member, Psychology in the Public Interest Faculty Search, 2008-2012; 2014-2015

Chair, HF/E Faculty Search Committee, 2012-2013  
 Chair, Ergonomics/Experimental Faculty Search, 2006-2007  
 Annual Personnel Performance Evaluation Committee, Member 2007, 2015  
 John Oliver Cooke Undergraduate Research Award Committee, Member 2005-present

#### PUBLICATIONS IN REFEREED JOURNALS:

(\* indicates student author)

##### Applied Cognition

- \*Crawford, J. T., Leynes, P. A., **Mayhorn, C. B.**, & Bink, M. L. (2004). Champagne, Beer, or Coffee?: A Corpus of Gender Related and Neutral Words Behavior Research Methods, Instruments, and Computers, 36 (3), 444-458.
- \*Kim, P.Y., & **Mayhorn, C. B.** (2008). Exploring students' prospective memory inside and outside the laboratory. American Journal of Psychology, 121(2), 241-254.
- Leynes, P. A., Marsh, R. L., Hicks, J. L., Allen, J. D., & **Mayhorn, C. B.** (2003). Investigating the encoding and retrieval of intentions with Event-Related Potentials (ERPs). Consciousness and Cognition, 12, 1-18.
- Leynes, P. A., & **Mayhorn, C. B.** (2003). A reply to R. West's comments on Leynes, Marsh, Hicks, Allen, & Mayhorn. Consciousness and Cognition, 12, 25-30.
- Marsh, R. L., Hicks, J. L., \*Cook, G. I., & **Mayhorn, C. B.** (2007). Comparing older and younger adults in an event-based prospective memory paradigm containing an output monitoring component. Aging, Neuropsychology, and Cognition, 14, 168-188.
- Mayhorn, C. B.**, Fisk, A. D., & \*Whittle, J. D. (2002). Decisions, decisions: Analysis of age, cohort, and time of testing on framing of risky decision options. Human Factors, 44(4), 515-521.
- Park, D. C., Hertzog, C., Kidder, D. P., Morrell, R. W., & **Mayhorn, C. B.** (1997). The effect of age on event-based and time-based prospective memory. Psychology and Aging, 12(2), 314-327.

##### Human-Technology Interaction

- \*Hardee, J. B., West, R., & **Mayhorn, C. B.** (2006). To download or not to download: An examination of computer security decision-making. Association of Computing Machinery: Interactions, 13(3), 32-37.
- Kelley, C. L., Morrell, R. W., Park, D. C., & **Mayhorn, C. B.** (1999). Predictors of electronic bulletin board system use in older adults. Educational Gerontology, 25, 19-35.
- Mayhorn, C.B.** & \*Carpenter, E. D. (2012). Age differences and transfer on control solution testing with blood glucometers. Work, 41, Supplement 1, 370-373.

- Mayhorn, C. B.**, \*Lanzolla, V. R., Wogalter, M. S., & \*Watson, A. M. (2005). Personal digital assistants (PDAs) as medication reminding tools: Exploring age differences in usability. Gerontechnology, 4(3), 128-140.
- Mayhorn, C.B.**, Murphy-Hill, E., \*Zielinska, O. A., & \*Welk, A. K. (2015). The social engineering behind phishing. The Next Wave, 21 (1), 32-39.
- Mayhorn, C.B.** & \*Nyeste, P. G. (2012). Training users to counteract phishing. Work, 41, Supplement 1, 3549-3552.
- Mayhorn, C. B.** & Sterns, A.A. (2007). Perfecting the handheld computer for older adults: From cognitive theory to practical application. Cognitive Technology, 12 (1), 14-20.
- Mayhorn, C. B.**, \*Stronge, A. J., \*McLaughlin, A. C., & Rogers, W. R. (2004). Older adults, computer training, and the systems approach: A formula for success. Educational Gerontology, 30(3), 185-203.
- Morrell, R. W., **Mayhorn, C. B.**, & Bennett, J. (2000). World Wide Web use in middle-aged and older adults. Human Factors, 42(2), 175-182.
- Morrell, R. W., Park, D. C., **Mayhorn, C. B.**, & Kelley, C. L. (2000). The effects of age and instructions on teaching older adults to use Eldercomm, an electronic bulletin board system. Educational Gerontology, 26, 221-235.
- \*Pearson, C. J., \*Geden, M., & **Mayhorn, C. B.** (In Press). Pedigree's effects on trust between humans and automation: Conflicting information in a dual advisor task. Applied Ergonomics.
- Sterns, A. A., & **Mayhorn, C. B.** (2006). Persuasive pillboxes: Improving medication adherence with personal digital assistants. Lecture Notes in Computer Science, 3962, 195-198.
- \*Welk, A., \*Zielinska, O., \*Tembe, R., \*Xe, G., \*Hong, K. W., Murphy-Hill, E., & **Mayhorn, C. B.** (2015). Will the "Phisher-men" Reel you in? Assessing Individual Differences in a Phishing Detection Task. International Journal of Cyber Behavior, Psychology, and Learning, 5(4), 1-16.
- Wogalter, M. S., & **Mayhorn, C. B.** (2005). Providing cognitive support with technology-based warning systems. Ergonomics, 48(5), 522-533.
- Wogalter, M. S., & **Mayhorn, C. B.** (2008). Trusting the internet: Cues affecting perceived credibility. International Journal of Technology and Human Interaction, 4 (1), 76-94.

### **Warnings and Safety**

- Goldsworthy, R. C. & **Mayhorn, C. B.** (2009). Prescription medication sharing among adolescents: Prevalence, risks, and outcomes. Journal of Adolescent Health, 45(6), 634-637.

- Goldsworthy, R. C., **Mayhorn, C. B.**, & Meade, A. W. (2010). Warnings in manufacturing: Improving hazard mitigation messaging through audience analysis. Human Factors and Ergonomics in Manufacturing & Service Industries, 20 (6), 484-499.
- Goldsworthy, R. C., Schwartz, N., & **Mayhorn, C. B.** (2008a). Interpretation of pharmaceutical warnings among adolescents. Journal of Adolescent Health, 42 (6), 617-625.
- Goldsworthy, R. C., Schwartz, N., & **Mayhorn, C. B.** (2008b). Beyond abuse and exposure: Framing the impact of prescription medication sharing. American Journal of Public Health, 98 (6), 1115-1121.
- Mayhorn, C. B.** (2005). Cognitive aging and the processing of hazard information and disaster warnings. Natural Hazards Review, 6(4), 165-170.
- Mayhorn, C. B.** & Goldsworthy, R. C. (2009). "New and improved": The role text augmentation and the application of responses interpretation standards (coding schemes) in a final iteration of birth defects warnings development. Birth Defects Research Part A: Clinical and Molecular Teratology, 85(10), 864-871.
- Mayhorn, C. B.**, & Goldsworthy, R. C. (2007). Refining teratogen warning symbols for diverse populations. Birth Defects Research Part A: Clinical and Molecular Teratology, 79(6), 494-506.
- Mayhorn, C. B.**, & McLaughlin, A.C. (2014). Warning the world of extreme events: A global perspective on risk communication for natural and technological disaster. Safety Science, 61, 43-50.
- Mayhorn, C. B.**, \*Nichols, T. A., Rogers, W. A., & Fisk, A. D. (2004). Hazards in the home: Using older adults' perceptions to inform warning design. Journal of Injury Control and Safety Promotion, 11(4), 211-218.
- Mayhorn, C. B.**, & Wogalter, M. S. (2010). Considering the warning context: New research methodologies and advances. Human Factors and Ergonomics in Manufacturing & Service Industries, 20 (6), 481-483.
- Mayhorn, C. B.**, Wogalter, M. S., & \*Bell, J. L. (2004). Are we ready? Misunderstanding homeland security safety symbols. Ergonomics in Design, 12(4), 6-14.
- Mayhorn, C. B.**, Wogalter, M. S., & \*Shaver, E. F. (2004). What does Code Red mean? Ergonomics in Design, 2(4), 12.
- Mayhorn, C.B.**, Wogalter, M. S., & Laughery, K. R. (2014). Special issue on warnings: Advances in delivery, application, and methods. Applied Ergonomics, 45(5), 1267-1269.

- McLaughlin, A. C., & **Mayhorn, C. B.** (2011). Avoiding harm on the farm: Human factors. Gerontechnology, 10(1), 26-37.
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- \*Zielinska, O., Wogalter, M.S., & **Mayhorn, C. B.** (2014). A perceptual analysis of standard safety colors and their fluorescent counterparts. Proceedings of the Human Factors and Ergonomics Society 58th Annual Meeting. Santa Monica, CA: Human Factors and Ergonomics Society.

### **Other**

- Brill, J. C., Andre, A. D., Beith, B., Boehm-Davis, D. A., Gawron, V. J., & **Mayhorn, C. B.** (2010). The future of human factors education: Practices and needs from the perspectives of academia, government, and industry. Proceedings of the Human Factors and Ergonomics Society 54th Annual Meeting. Santa Monica, CA: Human Factors and Ergonomics Society.
- \*Kim, P. Y. & **Mayhorn, C. B.** (2010). Exploring age-related differences in prospective memory: Inside and outside of the laboratory. Proceedings of the Human Factors and Ergonomics Society 54th Annual Meeting. Santa Monica, CA: Human Factors and Ergonomics Society.



- \*Kim, P. Y. & Mayhorn, C. B. (2014). Exploring the relationship between planning and working memory: Describing the role of working memory task load. Proceedings of the Human Factors and Ergonomics Society 56th Annual Meeting. Santa Monica, CA: Human Factors and Ergonomics Society.
- Smith-Jackson, T., Bisantz, A., **Mayhorn, C. B.**, Kleiner, B., Babski-Reeves, K., & McBride, M. (2018). Embracing the grind: Why we chose higher education administration; Maybe you should too. Proceedings of the Human Factors and Ergonomics Society 60th Annual Meeting. Santa Monica, CA: Human Factors and Ergonomics Society.
- Young, K. \*Smith, J., Wogalter, M. S., **Mayhorn, C. B.**, & \*Baucom, G. (2006). Are students learning about human factors and ergonomics in introductory psychology classes? Proceedings of the Human Factors and Ergonomics Society 50th Annual Meeting. Santa Monica, CA: Human Factors and Ergonomics Society.

### MANUSCRIPTS SUBMITTED AND IN PREPARATION:

(\* indicates student author)

#### Applied Cognition

- McDougald, B. R., & **Mayhorn, C. B.** (Under Revision). Persuasive technology: An investigation of efficacy using process tracing.
- \*Wilson, R., Ferreri, N., & Mayhorn, C. B. (Under Review). Game On: Using virtual reality to explore user experience in sports media. To appear in M.M. Soares, F. Reblo, and T. Ahram (Eds.) *Handbook of Usability and User-Experience (UX)*.
- \*Zielinska, O., & **Mayhorn, C. B.** (Under Review). Including incidence rates increases perceived susceptibility in a medical search task. Submitted to *Behavior and Information Technology*

#### Human-Technology Interaction

- \*Huh, JooHee, & **Mayhorn, C. B.** (Under Revision). The Dynamic Interplay between Spatialization of Written Units in Writing Activity and Functions of Tools on the Computer. *Association of Computing Machinery: Interactions*.
- \*Lawson, P., \*Crowson, A., and **Mayhorn, C. B.** (Under Review). Email phishing: Role of persuasion principle and personality on identification accuracy. Contribution to signal detection response pattern. Submitted to *Applied Ergonomics*
- \*Tembe, R., \*Xe, G., **Mayhorn, C. B.**, & Murphy-Hill, E. (In Preparation). How people from different cultures interpret phishing: Concerns for a diverse workplace. To be submitted to *ACM: Interactions*.
- \*Zielinska, O., \*Welk, A., \*Tembe, R., \*Xe, G., \*Hong, K. W., Murphy-Hill, E., & **Mayhorn, C. B.** (In Preparation). The effect of behavioral training on phishing susceptibility: Fear and consequence manipulations work.

### **Warnings and Safety**

\*Carpenter, E. D., & **Mayhorn, C. B.** (In Preparation) Effect of transfer with younger and older adults on control solution testing using two blood glucometers.

\*English, A. B., & **Mayhorn, C. B.** (In Preparation). Using the Communication-Human Information Processing (C-HIP) model to understand response to National Weather Service warnings.

### **SYMPOSIA (Served as Chair and Organizer)**

### **Applied Cognition**

Ellis, D. & **Mayhorn, C. B.** (Co-chairs) (October, 2001). Aging, Sensori-motor Abilities, and Everyday Function. Participants: John Eichman, Florian Jentsch, Carryl Baldwin, and Diana Schwerha. 45<sup>th</sup> Annual Meeting of the *Human Factors and Ergonomics Society*. Minneapolis, Minnesota.

### **Warnings and Safety**

Laughery, K. R. & **Mayhorn, C. B.** (Co-chairs) (September, 2011). What do human factors/ergonomics experts have to tell juries that they don't already know—But may think they know? Participants: A. Vredenburg, K. Neimire, M. Kalsher, M. Wogalter, and K. Laughery. 55<sup>th</sup> Annual Meeting of the *Human Factors and Ergonomics Society*. Las Vegas, Nevada.

**Mayhorn, C. B.**, Wogalter, M. S., & Laughery, K. R. (Co-chairs) (February, 2012). Technology-Based Warnings. Participants: J. Bliss, J. Kendler, D. Egilman, E. Duarte, and F. Rebelo. 18<sup>th</sup> World Congress of the International Ergonomics Association. Recife, Brazil.

**Mayhorn, C. B.**, Wogalter, M. S., & Laughery, K. R. (Co-chairs) (February, 2012). Auditory Alert Characteristics and Vehicular Warnings. Participants: C. Baldwin, P. E. Duarte, F. Rebelo, Hancock, J. and Casali. 18<sup>th</sup> World Congress of the International Ergonomics Association. Recife, Brazil.

**Mayhorn, C. B.**, Wogalter, M. S., & Laughery, K. R. (Co-chairs) (February, 2012). Litigation and Warnings: The Role of an Expert Witness. Participants: V. Lewis, D. Lenorovitz, D. Leonard, M. Wogalter, and M. Wogalter. 18<sup>th</sup> World Congress of the International Ergonomics Association. Recife, Brazil.

**Mayhorn, C. B.** (Chair) (October 2009). S3: Managing Safety: Accident Trends, Reliability, and Resilience. Participants: H. Rowbotham, Katherine Berry, Ronald Boring, and Michael Hildebrandt. 53<sup>rd</sup> Annual Meeting of the *Human Factors and Ergonomics Society*. San Antonio, Texas.

**Mayhorn, C. B.** & Wogalter, M. S. (Co-chairs) (July, 2010). Warnings for Consumer Products and Environments. Participants: F. Rebelo, A. Chan, J. Purswell, K. Burke, R. Goldsworthy, and J. Joyce. 3<sup>rd</sup> International Conference on Applied Human Factors and Ergonomics. Miami, Florida.

**Mayhorn, C. B. & Wogalter, M. S.** (Co-chairs) (July, 2008). Examining the Behavior of Special Populations during the Warnings Process. Participants: Ned Silver, Tonya Smith-Jackson, Mary Lesch, and Mary Duarte. 2<sup>nd</sup> International Conference on Applied Human Factors and Ergonomics. Las Vegas, Nevada.

Wogalter, M. S., **Mayhorn, C. B.**, & Laughery, K. R. (Co-chairs) (July, 2010). Warnings as an Issue in Forensic (legal) Investigations. Participants: A. Vredenburg, E. Karnes, W. Cain, W. Vigilante, D. Lenorovitz, and D. Leonard. 3<sup>rd</sup> International Conference on Applied Human Factors and Ergonomics. Miami, Florida.

Wogalter, M.S., & **Mayhorn, C. B.** (Co-chairs) (July, 2008). Medications, Public Health, and Warnings. Participants: Chris Mayhorn, Rick Goldsworthy, Carla Spinillo, and Tammy Tam. 2<sup>nd</sup> International Conference on Applied Human Factors and Ergonomics. Las Vegas, Nevada.

**Mayhorn, C. B.** (Chair) (July, 2006). Warnings II: Risk Perception and Warnings Design. Participants: D. Smith, E. Hellier, A. Vredenburg, J. Bliss, D. Riley, & M. Aslanides. 16<sup>th</sup> World Congress of the International Ergonomics Association. Maastricht, The Netherlands.

**Mayhorn, C.B.** (Chair) (October, 2001). Warnings and Aging: What Warnings Designers Do Not Know May Hurt Older Users. Participants: Holly Hancock, Derek Schroeder, Michael Wogalter, Melissa Meingast, and Kenneth Laughery. 45<sup>th</sup> Annual Meeting of the *Human Factors and Ergonomics Society*. Minneapolis, Minnesota.

Pak, R. & **Mayhorn, C. B.** (Co-chairs) (October 2009). Aging potpourri. Participants: D. Morrow, C. Baldwin, S. Czaja, J. Beer, & N. Ezer. 53<sup>rd</sup> Annual Meeting of the *Human Factors and Ergonomics Society*. San Antonio, Texas.

## PROFESSIONAL PRESENTATIONS:

(\* indicates student author)

### Invited Addresses

**Mayhorn, C. B.**, & \*Lawson, P. (2018, June). Personality and persuasion: Two factors in phishing susceptibility. School of Education, University of Iceland. Reykjavik, Iceland.

**Mayhorn, C. B.** (December, 2015). Hook, line, and sinker: A human factors investigation of phishing susceptibility. Cognitive Psychology Brownbag at the University of North Carolina--Greensboro. Greensboro, NC.

**Mayhorn, C. B.** & Tarala, K. (June 2015). Data breaches and securing healthcare humans. The 11<sup>th</sup> Annual American Medical Centers Security & Privacy Conference. Chapel Hill, NC.

**Mayhorn, C. B.** (April, 2015). Hook, line, and sinker: A human factors investigation of phishing susceptibility. HFES Student Chapter at Clemson University. Clemson, SC.

**Mayhorn, C. B.** (April, 2014). Understanding the 'H' in Science of Security HCI Research: Methods and Lessons Learned from Investigations of Phishing. HotSoS (First Annual Symposium and Bootcamp on the Science of Security). Raleigh, NC.

**Mayhorn, C. B.** (April, 2013). Developing new interventions to support safe and effective OTC medication behaviors. National Summit on OTC Medication Behaviors in Older Adults. Washington, D.C.

**Mayhorn, C. B.** (March, 2012). Warning the elderly: Understanding and overcoming barriers to risk communication. National Fire Protection Association's Workshop on Mass Notification of Vulnerable Populations, Phoenix, AZ.

**Mayhorn, C. B.** (April, 2010). Challenges in communicating risk information to older adults. National Academy of Sciences' Workshop on Public Response to Alerts and Warnings on Mobile Devices: Current Knowledge and Research Needs, Washington D.C.

**Mayhorn, C. B.** (May, 2010). Aging, medications, and warnings: What designers do not know may hurt consumers. Seminar for Faculdade de Motricidade Humana da Universidade Técnica de Lisboa, Lisbon, Portugal.

**Mayhorn, C. B.** (July, 2008). Iterative teratogen warning symbol design: Results from the field. National Science Foundation REU Workshop. Clemson, S.C.

### **Applied Cognition**

\*Kim, P. Y., & **Mayhorn, C. B.** (2007, March). Exploring prospective memory in and out of the lab. Poster presented at the North Carolina Cognition Group Meeting, Chapel Hill, N. C.

\*Lawson, P., & **Mayhorn, C.B.** (2019, March). The illusion of desirable difficulty and the optimization of declarative learning schedules. North Carolina Cognition Group Annual Meeting, Raleigh, N.C.

Leynes, P.A., Marsh, R.L., **Mayhorn, C.B.**, & Hicks, J.L. (1998, March). Event-related potentials and prospective memory. North Carolina Cognition Group Annual Meeting, Durham, N.C.

\*Lui, X, \*Lawson, P., & Mayhorn, C. B. (2018, July). A better way to learn: Retrieval-based practice effects under different schedules. Poster presented at the 17<sup>th</sup> Annual Undergraduate Research & Creativity Symposium, Raleigh, NC.

**Mayhorn, C.B.** (1995, August). The effects of cognitive and psychosocial factors on prospective tasks performed in laboratory and naturalistic settings. NIA Sponsored Workshop on Prospective Memory, Athens, Ga.

**Mayhorn, C. B.**, Fisk, A. D., & \*Whittle, J. D. (2003, February). Aging and decision making. Poster presented at the Annual Meeting of the North Carolina Cognition Group, Durham, N.C.

**Mayhorn, C. B.,** Fisk, A. D., & \*Whittle, J. D. (2002, August). Aging and decision making: The framing effect. Poster session presented at the 110<sup>th</sup> Annual meeting of the American Psychological Association, Chicago, IL.

**Mayhorn, C. B.,** Fisk, A. D., & \*Whittle, J. D. (2002, April). Framing and decision making in young and older adults. Paper presented at the 2002 Cognitive Aging Conference, Atlanta, GA.

**Mayhorn, C. B.,** Hicks, J. L., Marsh, R. L., & Hancock, T. W. (1999, April). Remembering to do things: Older adults display activation but not inhibition in the Intention-Superiority Paradigm. Annual Meeting of the Southern Gerontological Society, Atlanta, Ga.

**Mayhorn, C.B.,** Marsh, R.L., & Hicks, J.L. (1998, March). Monitoring memory for source: Applying the Judgment of Learning paradigm to the study of source-monitoring. North Carolina Cognition Group Annual Meeting, Durham, N.C.

**Mayhorn, C.B.,** Marsh, R.L., & Hicks, J.L. (1998, April). Making judgments of learning in a source-monitoring task. Annual Psi Chi Student Convention, Athens, Ga.

**Mayhorn, C.B.,** Park, D.C., Hertzog, C., Morrell, R.W., Kidder, D.P. (1994, April). The effects of age and event density on event-based prospective memory. Presentation at the Sigma Phi Omega Student Convention for Gerontology and Geriatrics, The University of Georgia. 1994.

**Mayhorn, C.B.,** Park, D.C., Morrell, R.W., & Marsh, R.L. (1995, August). Cognitive engagement in ecologically valid prospective memory tasks. American Psychological Association Annual Meeting. New York, NY.

**Mayhorn, C.B.,** Rogers, W.A., & Marsh, R. L. (2002, April). Input and output monitoring in young and older adults. Poster session presented at the 2002 Cognitive Aging Conference, Atlanta, GA.

### **Human-Technology Interaction**

\*Caudill, A. H., \*Zielinska, O. A., & **Mayhorn, C. B.** (2017, April). WebMD vs. RealMD: Anxiety's impact on post-online health search behavior. Poster presented at the 1<sup>st</sup> Annual Southeastern Human Factors Applied Research Conference (SHARC). Raleigh, NC.

Echt, K.V., Morrell, R.W., **Mayhorn, C.B.,** & Park, D.C. (1997, April). Older adults and technology: Attitudes, computer skills, and the effect of experience. Symposium on Technology and Underserved Populations at the 68th Annual Meeting of the Eastern Psychological Association, Washington, D.C.

\*Kexin, Y, \*Zielinska, O. A., & **Mayhorn, C. B.** (2015, July). Oops, I am hooked by a phishing email: Evaluating the social engineering of phishing attacks. Fourteenth Annual North Carolina State University Undergraduate Summer Research Symposium, Raleigh, N.C.

- \*Lanzolla, V. R. & **Mayhorn, C. B.** (2004, April). The usability of personal digital assistants as prospective memory aids for medication adherence in young and older adults. Poster presented at the 2004 Cognitive Aging Conference, Atlanta, GA.
- \*Lawson, P., \*Zielinska, O.A., & Mayhorn, C. B. (2017, April). Phishing efficacy by persuasion principle: A signal detection approach. Poster presented at the 1st Annual Southeastern Human Factors Applied Research Conference (SHARC). Raleigh, NC.
- Mayhorn, C. B.**, Murphy-Hill, E., \*Kelley, C. M., & \*Hong, K. W. (2012, November). Exploring perceptions of phishing: The role of social engineering in the science of security. Poster presented at the Science of Security Community Meeting, National Harbor, MD.
- Mayhorn, C. B.**, & Sterns, A. A. (2008, February). Age differences in usability of PDA-based medication reminding. International Conference on Aging, Disability, and Independence, St. Petersburg, FL.
- Mayhorn, C. B.** (2007, March). Computer security decisions: From cognitive theory to practical application. North Carolina Cognition Group Meeting, Chapel Hill, N.C.
- Morrell, R.W., **Mayhorn, C.B.**, & Bennett, J. (1999, March). Middle-aged and older adults' use of the World Wide Web. Spry Foundation Conference: Older Adults, Health Information, and the World Wide Web, Bethesda, Maryland.
- Morrell, R. W., Echt, K. V., **Mayhorn, C. B.**, & Bennett, J. (November, 1999). World Wide Web Use in Middle-Aged and Older Adults. 52<sup>nd</sup> Annual Meeting of the Gerontological Society of America, San Francisco, CA.
- Morrell, R. W., **Mayhorn, C. B.**, & Bennett, J. (November, 2000). Older Adults and Online information. 53<sup>rd</sup> Annual Meeting of the Gerontological Society of America, Washington, D.C.
- Morrell, R.W., Park, D.C., **Mayhorn, C.B.**, & Echt, K.V. (1995, August). Older adults and electronic communications networks: Learning to use ElderComm. American Psychological Association Annual Meeting, New York, NY.
- Morrell, R.W., Park, D. C., **Mayhorn, C.B.**, & Echt, K.V. (1995, November). The effect of age on utilizing electronic communications networks: Learning to use ElderComm. Gerontological Society of America Annual Meeting, Los Angeles, CA.
- Morrell, R.W., Park, D. C., **Mayhorn, C.B.**, & Echt, K.V. (1996, July). Electronic technology and the elderly: Designing instructional materials. International Conference on Memory, Albano Terme, Italy.
- Morrell, R.W., Park, D. C., **Mayhorn, C.B.**, & Echt, K.V. (1996, August). Effects of computer experience on attitudes toward computers in older adults. American Psychological Association Annual Meeting, Toronto, Canada.

Morrell, R.W., Park, D.C., **Mayhorn, C.B.**, Echt, K.V., & Bennett, J. (1998, August). Computers, the Web, and older adults. Symposium on Technology and Aging at the Annual Meeting of the Gerontological Society of America, Philadelphia, Pa.

Rogers, W. A., \*Stronge, A. J., \*Pak, R., & **Mayhorn, C. B.** (2002, July). Older adults and the World Wide Web: Minimizing complexity through design and training. XXV International Congress of Applied Psychology, Singapore.

\*Speller, L. F., & **Mayhorn, C. B.** (2008, July). W8, wats that face 4?: Emoticon comprehension. Seventh Annual North Carolina State University Undergraduate Summer Research Symposium, Raleigh, N.C.

\*Wilson, Yandell, L., & **Mayhorn, C.B.** (2019, March). Exploring novel virtual environments: Re-examining previous work on user characteristics and head movement. North Carolina Cognition Group Annual Meeting, Raleigh, N.C.

### **Warnings and Safety**

\*Lui, Y., & **Mayhorn, C. B.** (2013, July). Have you smelled something phishy? A cross-cultural study on conceptions and experiences of phishing between China and the U.S. Twelfth Annual North Carolina State University Undergraduate Summer Research Symposium, Raleigh, N.C.

**Mayhorn, C. B.** (2011). Assessing symbol comprehension for teratogen warnings. North Carolina Conference on Cognition, Greensboro, NC.

**Mayhorn, C.B.** (2008, July). Iterative teratogen warning symbol design: Results from the field. Invited Talk at the Conference on Applied Psychology funded by the NSF-Research Experiences for Undergraduate Students program, Clemson, S.C.

\*Fuller, J. A., **Mayhorn, C. B.**, & Wogalter, M. S. (2003, November). Miscomprehending homeland security safety symbols. Paper presented at the Third Annual Winston-Salem State University Psychology Conference, Winston-Salem, N.C.

**Mayhorn, C. B.** (2004, March). An empirical study of the Homeland Security safety icons. Paper presented at the APA/HFES Midyear Engineering and Military Psychology Conference, Washington D.C.

**Mayhorn, C. B.** (2004, July). Emerging issues in risk communication: Older adults and information processing of hazard warnings. Paper presented at the 29<sup>th</sup> Hazards Research and Applications Workshop, Boulder, CO.

- Mayhorn, C. B.** (2005, July). Social isolation and its impact on disaster planning and response: Exploring the reactions of older adults during the 2004 hurricane season. Paper presented at the 30<sup>th</sup> Hazards Research and Applications Workshop, Boulder, CO.
- \*Mendat, C. C., & **Mayhorn, C. B.** (2006, April). Age differences in the use of two different cellular telephone key pads. Poster presented at the 2006 Cognitive Aging Conference, Atlanta, GA.
- \*Ribar, N., **Mayhorn, C. B.**, & Wogalter, M. S. (2006, April). Risk perception of prohibition symbols before and after consequences. Poster presented at the 2006 North Carolina Psychological Association/North Carolina Psychological Foundation Spring Conference, Charlotte, NC.
- \*Wan, Z., \*Zielinska, O. A., & **Mayhorn, C. B.** (2014, July). Same but different: Qualitative differences and similarities in how different cultures conceptualize phishing. Thirteenth Annual North Carolina State University Undergraduate Summer Research Symposium, Raleigh, N.C.
- \*Zielinska, O., Wogalter, M.S., & **Mayhorn, C. B.** (2014, March). Hues of hazard: A perceptual analysis of standard safety colors and their fluorescent counterparts. Poster presented at the Annual Meeting of the North Carolina Cognition Group, Durham, N.C.



## **GRADUATE COURSEWORK**

Theories of Personality  
Developmental Psychology  
Quantitative Analysis I  
Quantitative Analysis II  
Cognitive Psychology  
Seminar in Aging  
Aging and Recreation  
Psychology of Prejudice  
Individual Differences  
Human Memory  
Quantitative Analysis IV

<sup>A</sup>Engineering Psychology I

<sup>A</sup>Human-Computer Interaction

Psychology of Aging  
Sensory Psychology  
Learning and Motivation  
History of Psychology  
Cognition and Aging  
Biological Foundations of Behavior  
Biology of Aging  
Neuroanatomy  
Psychopharmacology  
Cognitive Neuroscience  
Computer Programming  
<sup>A</sup>Engineering Psychology II

<sup>A</sup> Denotes that course was audited at the Georgia Institute of Technology.

## TEACHING EXPERIENCE:

I regularly teach three undergraduate courses and two graduate courses at North Carolina State University.

PSY 420: Cognitive Processes, Assistant/Associate/Full Professor

Spring, 2004, Spring 2005, Summer 2006, Fall 2006, Spring 2007, Summer 2007, Spring 2008, Summer 2008, Spring 2009, Summer 2009, Spring 2010, Summer 2010, Spring 2011, Summer 2011, Summer 2012, Spring 2013, Summer 2013, Summer 2014, Summer 2015, Summer 2016, Summer 2017

This course serves as an introduction to research on human cognition. Topics covered include neuroimaging, attention, memory, decision-making, problem-solving, and intelligence. Students are required to read recent empirical research articles and to write a term paper based on their own research into some cognitive phenomenon of interest to them.

PSY 400: Perception, Assistant Professor

Spring, 2003; Fall 2003; Fall, 2004

This is an overview course that covers the anatomy and perceptual phenomena associated with the five senses. Topics include psychophysics, vision, audition, and the psychological variables associated with how we perceive various stimuli. This course is known as one of the most challenging in the department because students are required to learn anatomical structures and familiarize themselves with other biological, physical, and mathematical concepts (e.g., log scales, algebra, and trigonometry).

PSY 200: Introduction to Psychology, Assistant/Associate Professor/Professor

Fall, 2002; Spring, 2003; Spring 2005; Spring 2006, Fall 2007, Spring 2008, Fall 2008, Fall 2009, Fall 2010, Spring 2011, Fall 2011, Spring 2012, Spring 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, and Spring 2018.

This is a survey course that encompasses a number of the subfields within the discipline of psychology. Topics covered include research methodology, statistics, biological foundations of behavior, sensation/perception, learning, memory, abnormal, and social psychology.

PSY 508: Cognitive Processes, Assistant/Associate Professor/Professor

Fall, 2003; Fall, 2004; Fall 2005, Fall 2006, Fall 2007, Fall 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2015, Fall 2016, and Fall 2017, Spring 2019

This graduate level course introduces beginning graduate students to the investigation of human cognition. Emphasis is placed on understanding the research methodology of current cognitive research and on critically evaluating the quality of published work. Topics covered include neuroimaging, attention, memory, decision-making, problem-solving, and intelligence.

PSY 710z: Human Factors and Aging, Assistant Professor

Spring, 2004; Spring 2006

This course is designed to explore the phenomena associated with human aging, including the basic physiological and cognitive changes that co-occur as we age. The impact of these changes on the science of human factors and ergonomics will be discussed such that students will develop an understanding of experimental designs utilized in the field. Topics will include the design of medical devices, smart technology, automobile operation, computer skill acquisition, and aviation.....to name but a few!

I taught two undergraduate courses in research design and statistics at the University of Georgia.

PSYC 2980: Research Design and Methodology, Course Instructor  
Fall, 1998; Spring (2 sections) & Summer 1999

This course was an introduction to research methods. The lectures addressed the general principles of the scientific method, descriptive, and experimental research. This course was required for all undergraduate Psychology majors. The laboratory portion of the class provided students with hands-on experience in hypothesis formation, psychological experimentation, and the communication of results in APA style.

PSYC 2990: Research Analysis, Course Instructor  
Summer & Fall (2 sections) 1999

This course followed PSYC 2980: Research Design. The lectures addressed basic concepts in statistics that are used to describe, analyze, and draw logical conclusions from data collected in behavioral sciences research. The laboratory portion of the course provided students with direct experience in data analysis using SPSS and communication of results using the APA format.

## STUDENT ADVISING

### **Ph.D. Dissertations Directed:**

Rebecca S. Green (Defended 2008, May). *Cognitive task analyses for life science automated training program design*. Doctoral Dissertation, North Carolina State University. (Co-chaired with David Kaber, NCSU ISE Dept.)

Paul Younghoon Kim (Defended 2013, March). *The relationship between planning and prospective memory: Examining the role of working memory task load*. Doctoral Dissertation, North Carolina State University.

Mary G. Luong (Defended 2014, March). *e-Textbook efficacy: The effect of guided navigation and adaptive flashcards on learning*. Doctoral Dissertation, North Carolina State University. (Co-chaired with Bard Mehlenbacher, NCSU Leadership Policy and Adult Higher Education Dept.)

Christina C. Mendat (Defended 2006, January). *The effectiveness of tactile cues on cellular telephones in younger and older adults*. Doctoral Dissertation, North Carolina State University.

Brannan R. McDougald (Defended 2014, March). *Persuasive technology: An investigation of efficacy using process tracing*. Doctoral Dissertation, North Carolina State University.

Patrick G. Nyeste (Defended 2011, April). *Training users to counteract phishing*. Doctoral Dissertation, North Carolina State University.

Carl Pearson (Defended 2019, April). *How cognitive risk types influence trust and reliance across automation stages*. Doctoral Dissertation, North Carolina State University.

David J. Sharek (Defended 2012, July). *Investigating real-time predictors of engagement: Implications for adaptive video games and online training*. Doctoral Dissertation, North Carolina State University. (Co-chaired with Eric Wiebe, NCSU STEM Education Dept.)

Lisa Whitman (Defended 2013, July). *The effectiveness of interactivity in multimedia software tutorials*. Doctoral Dissertation, North Carolina State University. (Co-chaired with Eric Wiebe, NCSU STEM Education Dept.)

Olga A. Zielinska (Defended 2017, October). *Examining the attentional and behavioral factors associated with escalation in web health searches*. Doctoral Dissertation, North Carolina State University.

### **M.S. Theses Directed:**

Eric D. Carpenter (Defended 2011, March). *Effect of transfer with younger and older adults on control solution testing using two blood glucometers*. Masters Thesis, North Carolina State University.

Addison English (Defended 2015, March). *Using C-HIP to understand NWS WEA warning response*. Masters Thesis, North Carolina State University.

Jefferson B. Hardee (Defended 2007, April). *Re-examining synthetic speech: Examining the effects of age, task, and speech type on recall*. Masters Thesis, North Carolina State University.

Paul Younghoon Kim (Defended 2009, April). *Exploring age-related differences in prospective memory inside and outside of the lab*. Masters Thesis, North Carolina State University.

Vincent R. Lanzolla (Defended 2004, August). *The usability of personal digital assistants as prospective memory aids for medication adherence in young and older adults*. Masters Thesis, North Carolina State University.

Wesley A. Luttrell (Defended 2013, August). *User responses to error messages: An examination of auditory warnings and their effects on users' responses to error messages in a computer environment*. Masters Thesis, North Carolina State University.

Carl Pearson (Defended 2017, May). *Pedigree's effects on trust between humans and automation: Conflicting information in a dual advisor task*. Masters Thesis, North Carolina State University.

Jesseca R. Israel Taylor (Defended 2014, December). *Effects of speaker voice and warning content on acceptability of fire evacuation warnings*. Masters Thesis, North Carolina State University.

Olga A. Zielinska (Defended 2015, May). *What are the chances? Examining the effect of displaying probability rates on web health searches*. Masters Thesis, North Carolina State University.

#### **Undergraduate Senior Honors Theses Directed:**

Paul Y. Kim (2004-2005). *Performance of activity-, event-, and time-based prospective memory tasks*. Senior Honors Thesis, North Carolina State University. Recipient of Psychology Departments 2005 Outstanding Graduating Senior Award.

Staci R. Thornton (2004-2005). *Change blindness and the effects of age and cue availability*. Senior Honors Thesis, North Carolina State University.

#### **Undergraduate Research Awards Projects Directed:**

Xinrong Liu (2018). Global Engagement in Academic Research (GEAR) Summer Research Program at NCSU for Chinese and Taiwanese Undergraduates.

Yu Kexin (2015). Global Engagement in Academic Research (GEAR) Summer Research Program at NCSU for Chinese and Taiwanese Undergraduates.

Yuqi Liu (2013). Global Engagement in Academic Research (GEAR) Summer Research Program at NCSU for Chinese and Taiwanese Undergraduates.

Lassiter Speller (2008). NSF-AGEP Program at NCSU.

Eric Carpenter (2006). *Older adults' comprehension of Over-the-Counter(OTC) medication labels*. Undergraduate Research Award, North Carolina State University.

Brandon Durham (2006). *Investigating the design of No-Turn-on-Red traffic signage*. Undergraduate Research Award, North Carolina State University.

Jacob A. Fuller (2004). *Evaluating age differences in radiological hazard preparation and warning compliance*. Undergraduate Research Award, North Carolina State University.

Zijian Wan (2014). Global Engagement in Academic Research (GEAR) Summer Research Program at NCSU for Chinese and Taiwanese Undergraduates.

Liang Ziyue (2017). Global Engagement in Academic Research (GEAR) Summer Research Program at NCSU for Chinese and Taiwanese Undergraduates.

**Broughton High School Baccalaureate Research Mentored Projects Directed; Raleigh NC:**

Elizabeth DuBay (2004). *Human memory*. Baccalaureate Research Project, Broughton High School, Raleigh, NC.

**Hunt High School AP Research Mentored Projects Directed; Wilson, NC:**

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