

VITA

ALISSA KATE HOLLAND

PERSONAL INFORMATION

Business Address: Department of Psychology
University of South Carolina Lancaster
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EDUCATION

B.S. 1996 – 2000 Hollins University
Major Field of Study: Clinical Psychology
Major Advisor: Bonnie Bowers, Ph.D.

M.A. 2000 – 2002 Radford University
Major Field of Study: Experimental Psychology
Thesis Title: Aging and Attention: Isolating the Motor Component
of Total Reaction Time
Major Advisor: Tom Pierce, Ph.D.

Ph.D. 2004 – 2008 Virginia Polytechnic Institute and State University
Major Field of Study: Developmental and Biological Psychology
Dissertation Title: A Functional Cerebral Systems Approach to
Hostility: Changes in Right Frontal Lobe Delta Activation
and Fluency Performance as a Function of Stress
Major Advisor: David Harrison, Ph.D.

POSITIONS AND APPOINTMENTS

- 2008-Present *Assistant Professor of Psychology*
University of South Carolina Lancaster, Lancaster, SC
Courses Taught: Introduction to Psychology
 Research Methods
 Psychological Statistics
 Cognitive Psychology
 Physiological Psychology
 Survey of Learning and Memory
- 2004-2008 *Graduate Teaching Assistant*
Virginia Polytechnic Institute and State University, Blacksburg, VA
Courses Taught: Introductory Psychology Recitation
 Principles of Research Methods
 Cognitive Psychology
 Cognitive Psychology Laboratory
 Psychology of Learning
 Physiological Psychology Laboratory
- 2003 *Post Graduate Researcher*
University of California at Davis, Davis, CA
Oligonucleotide synthesis and purification
- 2001-2002 *Graduate Teaching Fellow*
Radford University, Radford, VA
Courses Taught: Introductory Psychology
 Sensation and Perception
- 2000-2001 *Graduate Teaching Assistant*
Radford University, Radford, VA
Course Taught: Psychological Research Laboratory

CLINICAL TRAINING

- 2005-2007 *Psychological Services Center*
Virginia Polytechnic Institute and State University
Administration of Quantitative Electroencephalography (EEG),
standardized test administration, and syndrome analysis.
- 2005-2006 *Neural Scan Behavioral Associates, LLC*
EEG test technician, trained in EEG data analysis and artifacting
using the NeuroGuide software package, administration of
diagnostic tests and inventories.

CURRENT RESEARCH AND SCHOLARLY INTERESTS

- Cerebral lateralization of phoneme detection, motor function, and emotional processing as a function of stress in high and low hostile individuals
- Lateralized differences in cerebral activation as a function of digestive stress
- Neuroanatomical correlates of behavior in younger and older adults, neuropsychology of aging, prevalence and progression of persistent pain in older adults

PROFESSIONAL ACTIVITIES

- 2008-present Principle Investigator: Behavioral Neuroscience Laboratory at the
University of South Carolina Lancaster
- 2009 Chair, Psychology Club at the University of South Carolina Lancaster
- 2009 University of South Carolina Lancaster Chapter Advisor, Psi Beta
- 2008-2009 Faculty Affiliate, Psychology Club at the University of South Carolina
Lancaster
- 2008-2009 Mentoring Undergraduate Laboratory Assistants
Supervision of data collection and analysis for two ongoing projects, discussion
of the theoretical constructs that support current research, guidance on graduate
school admittance procedures and building a curriculum vita.
Behavioral Neuroscience Laboratory at University of South Carolina Lancaster
- 2007-2009 Ad Hoc Reviewer, Archives of Clinical Neuropsychology
Editor-in-Chief: Robert J. McCaffrey

- 2008 Seminar on Quantitative EEG Data Collection and Analysis
Invited to hold a one-week training session on the operation of the NeuroSearch-24 system (Lexicor Medical Technologies) and discuss current theories supporting quantitative EEG data collection.
Hollins University
- 2006-2008 Mentoring Undergraduate Laboratory Assistants
Supervision of data collection and analysis for ongoing projects, discussion of the theoretical constructs that support current research, guidance on graduate school admittance procedures and building a curriculum vita.
Behavioral Neuropsychology Laboratory at Virginia Tech
- 2005, 2007 Graduate Student Assembly Delegate
Student leadership and policy making for issues regarding graduate life
Virginia Polytechnic Institute and State University
- 2006 Technology Chair Candidate
Responsibilities include assimilating technological tools into the communication practices of society members
Gerontological Society of America
- 2001-2002 Imminent Scholar Committee Member
Responsible for selecting a professor to succeed Dr. Karl Pribram
Radford University

PROFESSIONAL MEMBERSHIP

Society for Psychophysiological Research

American Psychological Association

National Academy of Neuropsychology

International Neuropsychological Society

Gerontological Society of America

Emerging Scholar and Professional Organization (ESPO) Member

South Carolina Psychological Association

GRANTS IN SUBMISSION

- 2009 Holland, A.K. Lateralized Differences in Cerebral Activation as a Function of Digestive Stress: Changes in EEG Beta Magnitude in Diabetic and Non-Diabetic Men and Women. Submitted to: The Research and Productive Scholarship Grant Fund, University of South Carolina Lancaster, \$5,967.23. Funding to be determined.

GRANTS SUBMITTED

- 2007 Holland, A.K., Cox, D.E., Carmona, J.E., Belcher, T., & Harrison, D.W. Electrophysiological Correlates Of Alzheimer's Dementia: Changes In Hand Grip Strength As A Function Of Exposure To A Cognitive Stressor. Submitted to: Alzheimer's and Related Diseases Research Award Fund. (\$17, 564.00; not funded)
- 2007 Cox, D. E., Holland, A. K., Carmona, J. E., & Harrison, D. W. Patterns of Performance and Electrophysiological Indices of Neuroanatomical Decline in Mild Cognitive Impairment. Submitted to: Alzheimer's and Related Diseases Research Award Fund. (\$25,000; not funded).

GRANTS RECEIVED

- 2009 Holland, A.K. Neuropsychological and Physiological Correlates of Aging: Changes in Hand Grip Strength and Time Estimation as a Function of Exposure to a Right-Lateralized Cognitive Stressor. Submitted to: Research and Productive Small Grant Fund, University of South Carolina Lancaster, \$718.00.
- 2007 Holland, A.K. Travel Fund Program
Awarded monetary funds to defray travel expenses to present research on cerebral lateralization on function in hostility, \$275.00.
- 2007 Holland, A.K. Graduate Research and Development Program
Awarded monetary funds for the completion of dissertation research on fluency performance and changes in right frontal delta magnitude as a function of hostility and stress, \$286.00.

- 2006 Holland, A.K. Travel Fund Program: Graduate Student Assembly
Awarded monetary funds to defray travel expenses to present research on changes in right- and left-hand grip strength with hostility, \$230.00.
- 2002 Holland, A.K. Student Research and Creative Activity Grant
Awarded monetary funds for completion of thesis research and for payment of participants and materials, \$1,400.00.

HONORS AND AWARDS

- 2007 Visiting Scholar Award for Excellence in Scholarship in the Humanities and Social Sciences: Honorable Mention
Graduate Research Symposium at the College of William and Mary
- 2006 Graduate Student Recognition Award
The College of Science Awards Banquet at Virginia Polytechnic Institute and State University
- 1999 Dean's List, Hollins University
- 1996 Dean's List, Hollins University

PUBLISHED ABSTRACTS

- Holland, A.K., Carmona, J.E., Harrison, D.W., Hardin, J., Tucker, F., & Scott, M. (2010). Differences in cerebral lateralization of time estimation abilities and cardiovascular reactivity in diabetic and nondiabetic older adults. *Journal of the International Neuropsychological Society*.
- Holland, A.K., Carmona, J.E., Harrison, D.W., Hunt, S., Riner, B., & Lathan, K. (2009). Extending the functional cerebral systems approach to time estimation: Examining age-related changes in right hemisphere regulation of an internal clock. *Archives of Clinical Neuropsychology*.
- Carmona, J.E., Holland, A.K., Comer, C., & Harrison, D.W. (2009). Age-related differences in systolic blood pressure regulation and design fluency performance as a function of stress. *Archives of Clinical Neuropsychology*.

- Holland, A.K., Carmona, J.E., Harrison, D.W., Hunter, B.T., Leak, L., Nunnery, C., & Polenski, T. (2009). Evidence for sex differences in cerebral laterality: Examining changes in systolic blood pressure regulation and time estimation before and after exposure to a cognitive stressor. *Psychophysiology*, *46*(S1), 79.
- Holland, A.K., Carmona, J.E., & Harrison, D.W. (2009). Changes in temporal beta activation as a function of hostility and stress. *Journal of the International Neuropsychological Society*, *15*(S1), 268.
- Holland, A.K., Carmona, J.E., Cox, D.E., Johnson, B., & Harrison, D.W. (2008). A functional cerebral systems approach to hostility: Changes in design fluency performance as a function of exposure to physiological stress. *Archives of Clinical Neuropsychology*, *23*, 662.
- Holland, A.K., Carmona, J.E., Cox, D.E., Brickman, S., & Harrison, D.W. (2008). Changes in right frontal delta activation as a function of hostility and stress. *Archives of Clinical Neuropsychology*, *23*, 663.
- Carmona, J.E., Holland, A.K., Thompson, N.R., Mallory, T.R., Zielske, A.E., Stratton, H.J., Krieder, J., & Harrison, D.W. (2008). The influence of trait anxiety and gender on performance on the Dementia Rating Scale-II using a college-age sample. *Archives of Clinical Neuropsychology*, *23*, 715.
- Holland, A.K., Carmona, J.E., Walters, R., Flaherty, D., Belcher, T.L., & Harrison, D. (2008). Differences in cerebral lateralization of heart rate and time estimation as a function of hostility level. *Psychophysiology*, *45*(S1), 44.
- Cox, D.E., Holland, A.K., Carmona, J.E., Golkow, K., & Harrison, D.W. (2008). Cerebral lateralization and gustation: A quantitative electroencephalography study. *Journal of International Neuropsychological Society*, *14*(S1), 272.
- Crews, W.D., Harrison, D.W., Wright, J.W., & Holland, A.K. (2007). A double-blind, placebo-controlled, randomized trial of the efficacy of dark chocolate and cocoa on variables associated with neuropsychological functioning and cardiovascular health: clinical findings from a sample of cognitively intact older adults. *Archives of Clinical Neuropsychology*, *22*, 885.

- Carmona, J.E., Cox, D.E., Holland, A.K., Harrison, D.W., Mallory, T., & Stratton, H. (2007). A preliminary examination of the Dementia Rating Scale-II in a college sample. *Archives of Clinical Neuropsychology*, 22, 816-817.
- Cox, D.E., Carmona, J.E., Holland, A.K., Golkow, K., Johnson, B., Sucgang, J., & Harrison, D.W. (2007). Necker cube reversals as a measure of figural fluency: A comparison with the Ruff Figural Fluency Test. *Archives of Clinical Neuropsychology*, 22, 841.
- Holland, A.K., Carmona, J.E., Cox, D.E., Belcher, L.T., Wolfe, S., & Harrison, D.W. (2007). Time estimation differences in low and high hostile men: Behavioral and physiological correlates of right frontal regulation of an internal clock. *Psychophysiology*, 44(S1), 72.
- Holland, A.K., Mollet, G.A., Carmona, J.E., Addison, K., & Harrison, D.W. (2007). Differences in Cerebral Lateralization of Phoneme Detection as a Function of Hostility and Stress. *Journal of International Neuropsychological Society*, 13(S1), 52.
- Mollet, G.A., Holland, A.K., Carmona, J.E., Addison, K., & Harrison, D.W. (2007). Lateralized differences in systolic blood pressure regulation as a function of hostility level. *Journal of International Neuropsychological Society*, 13(S1), 52.
- Mollet, G.A., Harrison, D.W., & Holland, A.K. (2007). Hostility and pain: Increased cerebral activation to cold pressor pain in heightened hostility. *Journal of International Neuropsychological Society*, 13(S1), 39.
- Carmona, J.E., Holland, A.K., Harrison, D.W., Manuel, C., & Stratton, H.J. (2007). Lateralization of sympathetic arousal to verbal processing in state-anxious men. *Journal of International Neuropsychological Society*, 13(S1), 199.
- Carmona, J.E., Holland, A.K., Harrison, D.W., Stratton, H.J., & DeSouky, T.E. (2007). Sympathetic arousal and state anxiety differences in men following vestibular rotary stress. *Journal of International Neuropsychological Society*, 13(S1), 199.
- Holland, A.K., Roberto, K.A., & Perkins, S.N. (2006). Persistent pain in late life: A research update. *The Gerontologist*, 46(1), 36.
- Holland, A.K., Mollet, G.A., & Harrison, D.W. (2006). Sex differences in motor precision as a function of cerebral asymmetry. *Journal of International Neuropsychological Society*, 12(S1), 161.

Mollet, G.A., Holland, A.K., Kofalt, J.D., & Harrison, D.W. (2006). Differences in hand grip strength as a function of hostility, sex, and stress. *Journal of International Neuropsychological Society*, 12(S1), 226.

Mollet, G.A., Holland, A.K., & Harrison, D.W. (2005). Effects of bright light on unilateral stroke: Modified receptive speech deficits in left hemisphere stroke patients. *Archives of Clinical Neuropsychology*, 20, 859.

Mollet, G.A., Walters, R.P., Harrison, D.W., & Holland, A.K. (2005). EOG smooth pursuit errors as a function of hostility. *Archives of Clinical Neuropsychology*, 20, 846.

PEER REVIEWED PUBLICATIONS

Carmona, J.E., Holland, A.K., & Harrison, D.W. (2009). Extending the functional cerebral systems theory of emotion to the vestibular modality: A systematic and integrative approach. *Psychological Bulletin* 135(2), 286-302.

Carmona, J.E., Holland, A.K., Stratton, H.J., & Harrison, D.W. (2008). Sympathetic arousal to a vestibular stressor in high and low hostile men. *Brain and Cognition* 66(2), 150-155.

Roberto, K.A., Tice, S.N., & Holland, A.K. (2007). Persistent pain in late life: A research update. *Women and Aging* 19(3-4), 5-19.

MANUSCRIPTS SUBMITTED FOR PUBLICATION

MANUSCRIPTS IN PREPARATION

Holland, A.K., Mollet, G.A., Carmona, J.E., Addison, K., & Harrison, D.W. (2009). Hostility: Functional cerebral laterality differences in speech sound processing and cardiovascular regulation to angry baby cries.

Holland, A.K., Cox, D.E., Carmona, J.E., Golkow, K., & Harrison, D.W. (2009). Lateralized differences in cerebral activation as a function of food consumption. Manuscript in preparation for publication.

Holland, A.K., Carmona, J.E., & Harrison, D.W. (2009). Time estimation differences in low and high hostile men: Behavioral and physiological correlates of right frontal regulation of an internal clock. Manuscript in preparation for publication.

Holland, A.K., Pierce, T.W., King, J.S., & Willner, J.A. (2009). Age differences in EEG evoked potential indices of the motor component of reaction time. Manuscript in preparation for publication.

Carmona, J.E., Harrison, D.W., & Holland, A.K., & Cox, D. (2009). Performance on the Dementia Rating Scale-II using a college-age sample. Manuscript in preparation for publication.

Higgins, D., Harrison, D.W., Carmona, J.E., Holland, A.K., & Mollet, G.A. (2009). Cardiovascular reactivity to speech processing and cold pressor stress: Evidence for sex differences in functional cerebral laterality. Manuscript in preparation for publication.

PUBLIC PRESENTATIONS

Holland, A.K. (2009). The functional brain: How it affects what we do. Oral presentation given at University of South Carolina Lancaster Faculty Colloquium. February 25, 2009. Lancaster, SC.

Holland, A.K., Mollet, G.A., Carmona, J.E., & Harrison, D.W. (2007). Lateralized differences in systolic blood pressure regulation and phoneme detection as a function of hostility level and stress. Oral presentation given at The College of Williams and Mary 6th Annual Graduate Research Symposium. March 31, 2007. Williamsburg, VA.

Holland, A.K., Cox, D.E., Carmona, J.E., & Harrison, D.W. (2007). Lateralized differences in cerebral activation as a function of food consumption. Oral presentation given at Virginia Polytechnic Institute and State University. October 15, 2007. Blacksburg, VA.

POSTERS PRESENTED

Holland, A.K., Carmona, J.E., Harrison, D.W., Hunt, S., Riner, B., & Lathan, K. (2009). Extending the functional cerebral systems approach to time estimation: Examining age-related changes in right hemisphere regulation of an internal clock. Poster presented at the National Academy of Neuropsychology 29th Annual Conference, New Orleans, LA.

- Carmona, J.E., Holland, A.K., Comer, C., & Harrison, D.W. (2009). Age-related differences in systolic blood pressure regulation and design fluency performance as a function of stress. Poster presented at the National Academy of Neuropsychology 29th Annual Conference, New Orleans, LA.
- Kirby, J.E. Hunter, B.T., Leak, L.S., Coe, M., Polenski, T.A., Holland, A.K., & Harrison, D.W. (2009). A functional cerebral systems approach to examining changes in arousal in the left and right frontal lobes. Poster presented at the South Carolina Psychological Association 39th Annual Conference, Myrtle Beach, SC.
- Holland, A.K., Carmona, J.E., & Harrison, D.W. (2009). Changes in temporal beta activation as a function of hostility and stress. Poster presented at the International Neuropsychological Society 37th Annual Conference, Atlanta, GA.
- Holland, A.K., Carmona, J.E., Cox, D.E., Johnson, B., & Harrison, D.W. (2008). A functional cerebral systems approach to hostility: Changes in design fluency performance as a function of exposure to physiological stress. Poster presented at the National Academy of Neuropsychology 28th Annual Conference, New York, NY.
- Holland, A.K., Carmona, J.E., Cox, D.E., Brickman, S., & Harrison, D.W. (2008). Changes in right frontal delta activation as a function of hostility and stress. Poster presented at the National Academy of Neuropsychology 28th Annual Conference, New York, NY.
- Holland, A.K. Carmona, J.E., Walters, R., Flaherty, D., Belcher, T., & Harrison, D.W. (2008). Differences in cerebral lateralization of heart rate and time estimation as a function of hostility level. Poster presented at Society for Psychophysiological Research 48th Annual Conference, Austin, TX.
- Holland, A.K., Cox, D.E., Carmona, J.E., Golkow, K., & Harrison, D.W. (2007). Lateralized differences in cerebral activation as a function of food bolus intake. Poster presented at the Dean's Forum on Health, Food, and Nutrition, Blacksburg, VA.

- Crews, W.D., Harrison, D.W., Wright, J.W., & Holland, A.K. (2007). A double-blind, placebo-controlled, randomized trial of the efficacy of dark chocolate and cocoa on variables associated with neuropsychological functioning and cardiovascular health: clinical findings from a sample of cognitively intact older adults. Poster presented at the National Academy of Neuropsychology 27th Annual Conference, Scottsdale, AZ.
- Carmona, J.E., Cox, D.E., Holland, A.K., Harrison, D.W., Mallory, T., & Stratton, H. (2007). A preliminary examination of the Dementia Rating Scale-II in a college sample. Poster presented at the National Academy of Neuropsychology 27th Annual Conference, Scottsdale, AZ.
- Cox, D.E., Carmona, J.E., Holland, A.K., Golkow, K., Johnson, B., Sucgang, J., & Harrison, D.W. (2007). Necker cube reversals as a measure of figural fluency: A comparison with the Ruff Figural Fluency Test. Poster presented at the National Academy of Neuropsychology 27th Annual Conference, Scottsdale, AZ.
- Holland, A.K., Carmona, J.E., Cox, D.E., Belcher, L.T., Wolfe, S., & Harrison, D.W. (2007). Time estimation differences in low and high hostile men: Behavioral and physiological correlates of right frontal regulation of an internal clock. Poster presented at the Society for Psychophysiological Research 47th Annual Scientific Meeting, Savannah, GA.
- Holland, A.K., Mollet, G.A., Carmona, J.E., Addison, K., & Harrison, D.W. (2007). Differences in Cerebral Lateralization of Phoneme Detection as a Function of Hostility and Stress. Poster presented at the International Neuropsychological Society 35th Annual Conference, Portland, OR.
- Mollet, G.A., Holland, A.K., Carmona, J.E., Addison, K., & Harrison, D.W. (2007). Lateralized differences in systolic blood pressure regulation as a function of hostility level. Poster presented at the International Neuropsychological Society 35th Annual Conference, Portland, OR.
- Mollet, G.A., Harrison, D.W., & Holland, A.K. (2007). Hostility and pain: Increased cerebral activation to cold pressor pain in heightened hostility. Poster presented at the International Neuropsychological Society 35th Annual Conference, Portland, OR.

- Carmona, J.E., Holland, A.K., Harrison, D.W., Manuel, C. & Stratton, H.J. (2007). Lateralization of sympathetic arousal to verbal processing in state-anxious men. Poster presented at the International Neuropsychological Society 35th Annual Conference, Portland, OR.
- Holland, A.K., Roberto, K.A., & Perkins, S.N. (2006). Persistent pain in late life: A research update. Poster presented at the Gerontological Society of America 59th Annual Scientific Meeting, Dallas, TX.
- Holland, A.K., Mollet, G.A., & Harrison, D.W. (2006). Sex differences in motor precision as a function of cerebral asymmetry. Poster presented at the International Neuropsychological Society 34th Annual Conference, Boston, MA.
- Mollet, G.A., Holland, A.K., Kofalt, J.D., & Harrison, D.W. (2006). Differences in hand grip strength as a function of hostility, sex, and stress. Poster presented at the International Neuropsychological Society 34th Annual Conference, Boston, MA.
- Mollet, G.A., Holland, A.K., & Harrison, D.W. (2005). Effects of bright light on unilateral stroke: Modified receptive speech deficits in left hemisphere stroke patients. Poster presented at The National Academy of Neuropsychology 25th Annual Conference, Tampa, FL.
- Holland, A.K., Pierce, T.W., King, J.S., & Willner, J.A. (2005). Age differences in EEG evoked potential indices of the motor component of reaction time. Poster presented at the Society for Cognitive Neuroscience 12th Annual Meeting, New York, NY.
- Mollet, G.A., Walters, R.P., Holland, A.K. & Harrison, D.W. (2005). EOG smooth pursuit errors as a function of hostility. Poster presented at The National Academy of Neuropsychology 25th Annual Conference, Tampa, FL.
- Holland, A.K., Bobbin, D., Bauer, H., Carle, A., & Ashby, M. (2001). Gender differences in academic motivation: Differences in class attendance. Poster presented at the 6th Sixth Annual Radford University Student Research Conference on Gender, Radford, VA.

INSTITUTIONAL SERVICE

2008 – present Chair, Special Events and Lectures Committee

2008 – present Secretary, Assessment Committee

2008 – present Member, Library Committee