**NAME:** John E. Richards

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**WORK ADDRESS:** Department of Psychology

University of South Carolina Columbia, South Carolina 29208

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**BIRTHDATE:** May 27, 1952

### **EDUCATION:**

Biola College, La Mirada, CA. B.A., Psychology, Humanities, January, 1976. California State University, Fullerton, CA. M.A., Psychology, January, 1978. University of California, Los Angeles, CA. Ph.D., Psychology, September, 1982.

### **EMPLOYMENT:**

Staff Research Associate, III, Psychophysiology Laboratory, Neuropsychiatric Institute, University of California, Los Angeles, CA. Supervisor: Dr. David Shapiro. February, 1980, to July, 1982.

Assistant Professor, Department of Psychology, University of South Carolina, Columbia, S.C. August, 1982, to July, 1987.

Associate Professor, Department of Psychology, University of South Carolina, Columbia, S.C. August, 1987, to July, 1992.

Professor, Department of Psychology, University of South Carolina, Columbia, S.C. August, 1992 to present.

Carolina Distinguished Professor, University of South Carolina, Columbia, SC August, 2003 to present.

Interim Chair, Department of Psychology, University of South Carolina, Columbia SC. August, 2004 through July, 2005.

Interim Chair, Department of Psychology, University of South Carolina, Columbia SC. August, 2008 through July, 2010.

### **PROFESSIONAL SOCIETIES:**

American Psychological Association (Fellow, Division 3, Division 7)

American Psychological Society (Fellow)

Association for the Advancement of Science (Fellow)

Cognitive Neurosciences Society

International Society of Infant Studies

Society for Psychophysiological Research

Society for Research in Child Development

#### **UNIVERSITY ADMINISTRATIVE SERVICE:**

Member, Institutional Review Board for the Use of Human Subjects in Research, University of South Carolina, Fall, 1983, to Spring, 1989.

Member, Department Ethics Committee, Department of Psychology, University of South Carolina, Fall, 1983, to Spring, 1987.

Member, Graduate Admissions Committee, Department of Psychology, University of South Carolina, Fall, 1984, to Spring, 1993.

Chair, General-Experimental Admissions Subcommittee, Department of Psychology, University of South Carolina, Fall, 1984, to Spring, 1993.

Member, Developmental Psychology Faculty Position Search Committee, Fall, 1985.

Member, Executive Committee, Department of Psychology, University of South Carolina, Fall, 1986, to Spring, 1988.

Member, Sigma XI Selection Committee, Spring, 1987.

Member, Cognitive Psychology Faculty Position Search Committee, Fall, 1987.

Faculty Senate, representing Department of Psychology, University of South Carolina, Fall, 1988, to Spring, 1991.

Chair, Developmental Psychology Faculty Position Search Committee, 1991; 1992.

Member, Humanities and Social Sciences Faculty Research Award Selection Panel (Russell Research Award and USC Educational Foundation Research Award), 1993-1995.

Chair, Department Tenure and Promotion Committee, Department of Psychology, University of South Carolina, 1993-1994.

Member, University Committee on Tenure and Promotion, University of South Carolina, 1993-1996

Chair, Panel 2 Review Subcommittee, University Committee on Tenure and Promotion, University of South Carolina, 1994-1995.

Member, Developmental Cognitive Neuroscience Faculty Position Search Committee, Fall, 1997.

Member, School Psychology Faculty Position Search Committee, Fall, 1998.

Member, College of Liberal Arts, Dean Search Committee, 1998-1999.

Faculty Senate, representing Department of Psychology, University of South Carolina, Fall, 1998, to Spring, 2001; Fall, 2004 to Spring, 2007.

Member, Committee on Conflict of Interest, University of South Carolina, 1999-2004.

Member, Faculty Grievance Committee, University of South Carolina, 2000-2003.

Chair, Neurosciences Faculty Position Search Committee, 2000-2001.

Chair, Bicentennial Chair in Behavioral Neuroscience Search Committee, 2001-2002.

Member, Review Panel for Opportunity Grants, Office of Research Support, 2001-2002.

Chair, Cognitive Neuroscience search Committee, 2002-2003.

Member, University of South Carolina, Vice President for Research and Health Sciences Search Committee, 2003.

Chair, Quantitative Search Committee, 2003-2004.

Member, University of South Carolina, Committee on Named and Distinguished Professorships, 2003-2007.

Interim Chair, Department of Psychology, University of South Carolina. 2004-2005.

Chair, Cognitive Neuroscience search committee, 2005-2006.

Member, University Committee on Tenure and Promotion, University of South Carolina, 2006-2008.

Member, Institutional Review Board for the Use of Human Subjects in Research, University of South Carolina, Fall, 2006 to Spring, 2012.

Chair, Director of Women's Studies search committee, University of South Carolina, 2006-2007.

Chair, Cognitive Neuroscience search committee, 2006-2007.

Interim Chair, Department of Psychology, University of South Carolina, 2008-2010.

Member, University Committee on Tenure and Promotion, University of South Carolina, 2010-2013.

Member, Instructional Technology Committee, College of Arts and Sciences, University of South Carolina, 2005-

Member, Institutional Review Board for the Use of Human Subjects in Research, University of South Carolina, Fall, 2012 to Spring, 2018.

Member, Quantitative Psychology search committee, Department of Psychology, University of South Carolina, 2013-2015.

Member, Steering Committee, Institute for Mind and Brain, College of Arts and Sciences, University of South Carolina.

Member, Social Sciences Research Grant Review Panel, University of South Carolina, 2012 – 2014.

Member, Faculty Space Committee, Institute for Mind and Brain and Department of Psychology, University of South Carolina, 2014-....

### **PROFESSIONAL SERVICE:**

Ad hoc reviewer for journals, Biological Psychology, British Journal of Developmental Psychology, Canadian Journal of Psychology, Child Development, Cognitive Development, Developmental Psychobiology, Developmental Psychology, Infant Behavior and Development, Journal of Experimental Child Psychology, Journal of Experimental Psychology: Human Perception and Performance, Journal of Experimental Psychology: General, Merrill-Palmer Quarterly, Pediatric Research, Psychological Bulletin, Psychological Science, Psychophysiology.

Member, Conference Program Committee: Conference on Human Development, 1994.
International Society for Infant Studies, 1992, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018; Society for Research in Child Development, 1987, 1989, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015; Society for

Psychophysiological Research, 1986, 1987, 1992-1995; Southeastern Conference on Human Development, 1986, 1988, 1990.

Chair, Program Committee, Society for Psychophysiological Research, 1994.

Chair, Biological Processes Program Review Panel, International Society for Infant Studies, 1998.

Chair, Perceptual, Sensory, Motor, Psychobiological and Neuropsychological Processes Panel, Society for Research in Child Development, 2003.

Chair, Developmental Neuroscience Review Panel, International Society for Infant Studies, 2012.

Member, Convention Committee, Society for Psychophysiological Research, 1988-1990.

Member, Bylaws Committee, Society for Psychophysiological Research, 1990-1992.

Associate Editor, *Psychophysiology*, 1990-1993.

Associate Editor, *Biological Psychology*, 1996-2000.

Associate Editor, Infancy, 1998-2003.

Board of Editors, Infant Behavior and Development, 1990-present.

Board of Editors, *Developmental Psychology*, 1998-present.

Board of Editors, *Child Development*, 1996-present.

Reviewer for research grants: Alcohol, Drug Abuse, and Mental Health Administration, National Institute of Drug Abuse, 1990-1993; Alcohol, Drug Abuse, and Mental Health Administration, National Institute of Mental Health, Small Grants Review Committee, 1988-1991; March of Dimes Birth Defects Foundation, Social and Behavioral Sciences Research Grant, 1987, 1993, 1995; National Institutes of Health, National Institute of Child Health and Human Development, Human Development and Aging Review Group, 1988; National Science Foundation, Human Cognition and Perception program, 1988, 1989, 1992, 1993, 1997, 2000; National Science Foundation, ad hoc reviews, 2001, 2002, 2003; National Institutes of Health, National Institute of Mental Health, 1993-2001, including Small Business Innovation Research Program (committee member, 1997-1999), Special Review Committee on Centers for Behavioral Science Research, B-Start grant program, Perception and Cognition IRG, Child/Adolescent Development Risk and Prevention IRG; International Human Frontier Science Program, 1995, 1998; Italian Ministry of University and Scientific Research, 1998-1999; Department of Defense Polygraph Institute, 1999. National Institutes of Health, Center for Scientific Review, 1999 - 2001, Biobehavioral and Behavior Processes Study Sections 2 and 4; Medical Research Council, Great Britain, 1999, 2000, 2001; United States-Israel Binational Science Foundation, 2002.

Organizing Committee, Workshop on Cognition, NICHD Scientific Vision: The Next Decade, National Institute of Child Health and Human Development, 2010-2011 (March 15-16, 2011 workshop).

Executive Committee, International Society on Infant Studies, 2012-2018.

External Advisory Committee, Baby Siblings Research Consortium, Autism Speaks, 2015-2017.

#### **RESEARCH GRANTS:**

- National Institutes of Mental Health, Predoctoral Traineeship. University of California, Los Angeles, CA. Fall, 1977, to June, 1981.
- National Institutes of Health Biomedical Research Support Grant. University of South Carolina, Columbia, S.C. January, 1983, to January, 1984. \$6,455.
- University of South Carolina Research and Productive Scholarship Award. University of South Carolina, Columbia, S.C. January, 1984, to January, 1985. \$2,900.
- National Science Foundation, EPSCOR Award. University of South Carolina, Columbia, S.C. Summer, 1984. \$3,500.
- March of Dimes Birth Defects Foundation, Social and Behavioral Sciences Research Grant. March, 1985 to February, 1987. \$26,000.
- National Institutes of Health, National Institute of Child Health and Human Development, New Investigator Research Award. September, 1985 to August, 1988. \$105,537.
- Carolina Venture Fund. University of South Carolina, Columbia, S.C. January, 1986, to January, 1987. \$7,500.
- University of South Carolina Research and Productive Scholarship Award. University of South Carolina, Columbia, S.C. January, 1987, to January, 1988. \$2,760.
- National Institutes of Health, National Institute of Child Health and Human Development. September, 1988, to August, 1991. \$276,655.
- National Institutes of Health Biomedical Research Support Grant. University of South Carolina, Columbia, S.C. June, 1988, to May, 1989. \$4,839.
- National Institutes of Health Small Instrumentation Program Grant, University of South Carolina, Columbia, S.C. June, 1988, to December, 1989. \$16,371.
- March of Dimes Birth Defects Foundation, Social and Behavioral Sciences Research Grant. March, 1991 to February, 1992. \$40,000.
- National Institutes of Health, National Institute of Child Health and Human Development. February, 1992, to August, 1997. \$562,000.
- National Institute of Mental Health, Research Scientist Development Award. May, 1992, to April, 1997. \$391,205.
- National Institutes of Health, National Institute of Child Health and Human Development. September, 1997, to December, 2001. \$1,067,613.
- National Science Foundation, Division of Social and Behavioral Science, Major Research Instrumentation Award. September 1, 1999 to August 31, 2002. \$399,475.
- Department of Defense Polygraph Institute. June 1, 2000, to May 31, 2002. \$300,000.
- National Institutes of Health, National Institute of Child Health and Human Development. January, 2002 to February, 2007. \$1,292,490.
- McDonnell Foundation. March, 2004 to February, 2006. \$48,000.; continued March, 2006 to February, 2008, unknown amount.
- "Infant attention and recognition memory"; National Institutes of Health, National Institute of Child Health and Human Development. August, 2005 to July, 2007. \$24,000.

- National Institutes of Health, National Institute of Child Health and Human Development. March, 2007 through February, 2012, \$2,384,469.
- National Institutes of Health, National Institute of Child Health and Human Development. American Recovery and Reinvestment Act (ARRA) supplement. June, 2009 through August, 2010. \$76,284
- Promising Investigator Research Award, Office of Research, University of South Carolina, 2010 through 2012 (co-PI with Melanie Palomares), \$20,000.
- Co-Investigator, National Institutes of Health, National Institute of Mental Health, "Emergence and stability of autism in FragileX Syncrome", R01 grant, , 2011 through 2016, \$1,934,000 requested. PI: Jane Roberts.
- National Institutes of Health, National Institute of Child Health and Human Development, "Development of sustained attention in infants", March, 2012 through February, 2018, \$2,850,022. R37HD18942.
- ASPIRE-III Award, Office of Research, University of South Carolina, 2012-2014 (co-PI with Chris Rorden), \$32,990.
- Institute for Visiting Scholars, Office of the Provost, University of South Carolina, 2013-2014 (co-PI with Jane Roberts), \$25,000.
- Co-Investigator, National Institutes of Health, National Institute of Mental Health, "Emergence and stability of autism in FragileX Syncrome", R01 grant, 2016 -2021, \$3,130,367. PI: Jane Roberts. R01MH90194.
- National Institutes of Health, National Institute of Child Health and Human Development, "The Neurodevelopmental MRI Database", April, 2017, through March, 2019, \$127,550. R03HD091464.
- National Institutes of Health, National Institute of Child Health and Human Development, "Development of sustained attention in infants", August, 2017 through May, 2022, \$2,700,198. R01HD18942.

### **GRANT COLLABORATIONS:**

- Consultant, National Institutes of Health, National Eye Institute, R01 Grant, Tony Norcia, Stanford University.
- Advisory Board, National Institute of Health, "Functions and Development of the Mirror Neuron System", Program Project Grant, Amanda Woodward and Nathan Fox, University of Maryland.
- Consultant, National Institutes of Health, R01 grant, "Physiology of Attention and Regulation in Children with ASD and LD", Sarah Jane Webb, University of Washington.
- Co-Investigator, National Institutes of Health, National Institute of Mental Health, "Emergence and stability of autism in FragileX Syncrome", R01 grant, , 2011 through 2016, \$1,934,000 requested. PI: Jane Roberts.
- Co-Investigator, National Institutes of Health, National Institute of Child Health and Human Development, "Infant attention and recognition memory", R03, August 2005 to July 2008, \$127,000. PI: Greg Reynolds.

- Consultant, National Institutes of Health, National Institute of Mental Health, "Infant self-regulation and neural development", program project grant, Joel Nigg, Oregon Health Science University, John Gilmore, University of North Carolina-Chapel Hill.
- Consultant, Department of Defense, "Harnessing Neuroplasticity to Promote Rehabilitation: CI Therapy for TBI", Edward Taub, University of Alabama, Birmingham.

## **MENTOR ACTIVITY:**

- Mentor, National Institutes of Health, National Institute of Mental Health, "Transcranial Magnetic Stimulation and EEG: Dosing paradigms for depression", , K23 Mentored Career Development Award, E. Baron Short, Medical University of South Carolina.
- Mentor, National Institutes of Health, K23 Mentored Career Development Award, "Auditory Temporal Processing in the Aging Ear and Brain", Kelly Harris, Medical University of South Carolina, September 2007 through August, 2012.
- Mentor, Wellcome Trust, Value in People Training Award. "Enhancing cortical source localisation of infant event-related potentials", Joe P McCleery, University of Birmingham, Birmingham, England, UK., October, 2010 through August, 2011, £3,500.
- Mentor, National Institutes of Health, "Predicting autism through infant attention", F31 Predoctoral National Research Service Award, Bridgette Tonnsen, University of South Carolina. June, 2011 through May, 2013.
- Mentor, Medical University of South Carolina, "Neurobiology of speech understanding in the aging ear and brain", John R. Raymond Fellowship, KellyHarris, Medical University of South Carolina, July 1, 2012, and ending June 30, 2013.
- Mentor, National Institutes of Health, "Cortical Areas Involved in Face Processing in Infants at Low- and High-Risk for Autism Spectrum Disorders", F32 Postdoctoral National Research Service Award, Nicki Zieber, University of South Carolina. September, 2013 through August, 2015, \$103,228.
- Mentor, University College London, "Visual, neural and behavioural correlates of school-age children with visual impairment", Bogue Research Fellowship, Johannes Bathelt, University College London, January 24, 2014 through February 15, 2014. £2419.
- Wanze Xie, Early Career Research Excellence Award, Experiment Psychology Graduate Program, Spring 2015.
- Mentor, National Institutes of Health, "Telehealth Assessment of Syndromic Autism Risk in Infants", K23MH111955, Mentored Patient-Oriented Research Career Development Award, Bridgette Tonnsen, School of Psychological Science, Purdue University. July, 2017 through June, 2022. \$913,220.

# **HONORS AND AWARDS:**

Russell Award for Research in the Humanities and Social Sciences, University of South Carolina, May, 1991.

Fellow, Division 7, American Psychological Association. January, 2000 - ...

Fellow, Division 3, American Psychological Association. January, 2003-...

Carolina Distinguished Professor, University of South Carolina, August, 2003-...

Fellow, American Psychological Society, January 2008-

Fellow, American Association for Advancement in Science, January 2010-

National Institutes of Health Awards, including: NICHD New Investigator Research Award (1985 to 1988), NIMH Research Scientist Development Award (1992 to 1997), NICHD MERIT Award (2007-2017).

Marie Curie Visiting Professor, Centre for Brain and Cognitive Development, Birkbeck College, University of London. Spring, 2012

### **PUBLICATIONS:**

- Rader, N., Bausano, M., & Richards, J.E. (1980). On the nature of the visual-cliff-avoidance response in human infants. *Child Development*, *51*, 61-68.
- Richards, J.E. (1980). The statistical analysis of heart rate data: A review emphasizing infancy data. *Psychophysiology*, *17*, 153-166.
- Richards, J.E., & Rader, N. (1981). Crawling onset age predicts visual cliff crossing in human infants. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 382-387.
- Richards, J.E., & Rader, N. (1983). Affective, behavioral, and avoidance responses on the visual cliff: Effect of crawling onset age, crawling experience, and testing age. *Psychophysiology*, *20*, 633-642.
- Richards, J.E. (1985). Respiratory sinus arrhythmia predicts heart rate and visual responses during visual attention in 14 and 20 week old infants. *Psychophysiology*, 22, 101-109.
- Richards, J.E. (1985). The development of sustained visual attention in infants from 14 to 26 weeks of age. *Psychophysiology*, 22, 409-416.
- Richards, J.E., Parmelee, A.H., & Beckwith, L. (1986). Spectral analysis of infant EEG and behavioral outcome at age five. *Electroencephalography and Clinical Neurophysiology*, 64, 1-11.
- Richards, J.E. (1987). Infant visual sustained attention and respiratory sinus arrhythmia. *Child Development*, *58*, 488-496.
- Richards, J.E. (1988). Heart rate changes and heart rate rhythms, and infant visual sustained attention. In P.K. Ackles, J.R. Jennings, and M.G.H. Coles (Eds.), *Advances in psychophysiology* (Vol. 3, pp. 189-221). Greenwich, CT: JAI Press.
- Richards, J.E. (1988). Heart rate offset responses to visual stimuli in infants from 14 to 26 weeks of age. *Psychophysiology*, *25*, 278-291.
- Casey, B. J., & Richards, J. E. (1988). Sustained visual attention in young infants measured with an adapted version of the visual preference paradigm. *Child Development*, *59*, 1515-1521.
- Richards, J.E. (1989). Development and stability in heart-rate-defined, visual sustained attention in 14, 20, and 26 week old infants. *Psychophysiology*, *26.* 422-430.
- Richards, J.E. (1989). Sustained visual attention in 8-week-old infants. *Infant Behavior and Development*, 12, 425-436.
- Richards, J.E., & Cameron, D. (1989). Infant heart rate variability and behavioral-developmental status. *Infant Behavior and Development*, 12, 45-58.
- Richards, J.E., & Casey, B.J. (1991). Heart rate variability during attention phases in young infants. *Psychophysiology*, 28, 43-53.
- Casey, B.J., & Richards, J.E. (1991). A refractory period for the heart rate response in infant visual attention. *Developmental Psychobiology*, *24*, 327-340.
- Richards, J.E., & Casey, B.J. (1992). Development of sustained visual attention in the human infant. In B.A. Campbell, H. Hayne, & R. Richardson (Eds.), *Attention and information*

- processing in infants and adults: Perspectives from human and animal research (pps. 30-60). Hillsdale, NJ: Erlbaum.
- Richards, J.E. (1994). Baseline respiratory sinus arrhythmia and heart rate responses during sustained visual attention in preterm infants from 3 to 6 months of age. *Psychophysiology*, *31*, 235-243.
- Richards, J.E. (1995). Reliability of respiratory sinus arrhythmia, in 14, 20, and 26 week old infants. *Infant Behavior and Development*, 18, 155-161.
- Richards, J.E. (1995). Infant cognitive psychophysiology: Normal development and implications for abnormal developmental outcomes. In T.H. Ollendick & R.J. Prinz (Eds.), *Advances in Clinical Child Psychology* (Vol 17, pps 77-107). New York: Plenum Press.
- Richards, J.E. (1997). Effects of attention on infants' preference for briefly exposed visual stimuli in the paired-comparison recognition-memory paradigm. *Developmental Psychology*, 33, 22-31.
- Richards, J.E. (1997). Localization of peripheral stimuli by infants: Age, attention and individual differences in heart rate variability. *Journal of Experimental Psychology: Human Perception and Performance*, 23, 667-680.
- Richards, J.E., & Gibson, T.L. (1997). Extended visual fixation in young infants: Look distributions, heart rate changes, and attention. *Child Development.* 68, 1041-1056.
- Richards, J.E., & Hunter, S.K. (1997). Peripheral stimulus localization by infants with eye and head movements during visual attention. *Vision Research*. **37**, 3021-3035
- Berg, W.K, & Richards, J.E. (1997). Attention across time in infant development. In P.J. Lang, R.F. Simons, and M.T. Balaban (Eds), *Attention and orienting: Sensory and motivational processes* (pp. 347-368). Mahway, NJ: Erlbaum.
- Kelly, S.J., & Richards, J.E. (1997). Development of heart inter-beat interval variability in preweanling rats: Effects of exposure to alcohol and hypoxia. *Physiology and Behavior*, *61*, 231-241.
- Lansink, J.M., & Richards, J.E. (1997). Heart rate and behavioral measures of attention in 6-, 9-, and 12-month-old infants during object exploration. *Child Development*, 68, 610-620.
- Richards, J.E. (1998). *Cognitive neuroscience of attention: A developmental perspective*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Richards, J.E. (1998). Development of selective attention in young infants. *Developmental Science*, 1, 45-51.
- Richards, J.E. (1998). Focusing on visual attention. *Early Development and Parenting*, 7, 153-158.
- Richards, J.E., & Hunter, S.K. (1998). Attention and eye movement in young infants: Neural control and development. In J.E. Richards (Ed.), *Cognitive neuroscience of attention: A developmental perspective* (pp. 131-162). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Richards, J.E., & Lansink, J.M. (1998). Distractibility during visual fixation in young infants: The selectivity of attention. In C. Rovee-Collier, L. Lipsitt, & H. Hayne (Eds.), *Advances in Infancy Research* (Volume 13, pp. 407-444). Norwood, NJ: Ablex Publishing Co.

- Hicks, J.M., & Richards, J.E. (1998). The effects of stimulus movement and attention on peripheral stimulus localization by 8- to 26-week-old-infants. *Infant Behavior and Development*, *21*, 571-589.
- Kelly, S.J., & Richards, J.E. (1998). Heart rate orienting and respiratory sinus arrhythmia development in rats exposed to alcohol or hypoxia. *Neurotoxicology and Teratology*, *20*, 193-202.
- Richards, J. E., & Holley, F.B. (1999) Infant attention and the development of smooth pursuit tracking. *Developmental Psychology*, 35, 856-867.
- Richards, J.E. (2000). Development of multimodal attention in young infants: Modification of the startle reflex by attention. *Psychophysiology*, *37*, 65-75.
- Richards, J.E. (2000). Localizing the development of covert attention in infants using scalp event-related-potentials. *Developmental Psychology*, *36*, 91-108.
- Richards, J.E., & Cronise, K. (2000). Extended visual fixation in the early preschool years: look duration, heart rate changes, and attentional inertia. *Child Development*, 72, 602-620
- Lansink, J.M., Mintz, S., & Richards, J. E. (2000). The distribution of infant attention during object examination. *Developmental Science*. *3*, 163-170.
- Richards, J.E. (2001). Cortical indices of saccade planning in infants. *Infancy*, 2, 123-133
- Richards, J.E. (2001). Cortical indices of saccade planning following covert orienting in 20-week-old infants. *Infancy*, 2, 135-157
- Richards, J.E., and Turner, E.D. (2001). Distractibility during extended viewing of television in the early preschool years. *Child Development*, 72, 963-972.
- Frick, J., & Richards, J.E. (2001). Individual differences in recognition of briefly presented visual stimuli. *Infancy*, **2**, 331-352.
- Richards, J.E. (2001). Attention in young infants: A developmental psychophysiological perspective. In C.A. Nelson & M. Luciana (Eds.), *Developmental cognitive neuroscience* (pp. 321-338) Cambridge, MA, US: MIT Press.
- Richards, J.E., & Hunter, S.K. (2002). Testing neural models of the development of infant visual attention. *Developmental Psychobiology*, 40, 226-236.
- Richards, J.E. (2003). Development of attentional systems. In M. De Haan & M.H. Johnson (Eds.), *The cognitive neuroscience of development* (pp 73-98). East Sussex, UK: Psychology Press
- Hunter, S.K., & Richards, J.E. (2003). Peripheral stimulus localization by 5- to 14-week-old infants during phases of attention. *Infancy*, 4,1-25.
- Richards, J.E. (2003). Attention affects the recognition of briefly presented visual stimuli in infants: An ERP study. *Developmental Science*, 6, 312-328.
- Richards, J.E. (2003). Cortical sources of event-related-potentials in the prosaccade and antisaccade task. *Psychophysiology*, *40*, 878-894.
- Richards, J.E. (2004). Recovering dipole sources from scalp-recorded event-related-potentials using component analysis: Principal component analysis and independent component analysis. *International Journal of Psychophysiology*, *54*, 201-220.

- Richards, J.E., & Anderson, D.R. (2004). Attentional inertia in children's extended looking at television. *Advances in Child Development and Behavior*, 32, 163-212..
- Richards, J.E. (2004). The development of sustained attention in infants. In M.I. Posner (Ed.), *Cognitive neuroscience of attention* (Chapter 25, pp 342-356). Guilford Press..
- Richards, J.E. (2004). Attention. *The Cambridge Encyclopedia of Child Development* (282-286). Cambridge Press.
- Richards, J.E. (2004). Development of covert orienting in young infants. In L. Itti, G. Rees, & J. Tsotsos (Eds.), *Neurobiology of attention* (Chapter 14, pp. 82-88). Academic Press / Elsevier.
- Richards, J.E. (2005). Localizing cortical sources of event-related potentials in infants' covert orienting. *Developmental Science*, *8*, 255-278.
- Reynolds, G.D., & Richards, J.E. (2005). Familiarization, attention, and recognition memory in infancy: An ERP and cortical source localization study, *Developmental Psychology*, *41*, 598-615.
- Johnson, M.H., Griffin, R., Csibra, G., Halit, H., Farroni, T., de Haan, M., Baron-Cohen, S., & Richards, J.E. (2005). The emergence of the social brain network: Evidence from typical and atypical development. *Development and Psychopathology*, *17*, 599-619.
- Courage, M.L., Reynolds, G.D., & Richards, J.E. (2006). Infants' visual attention to patterned stimuli: Developmental change and individual differences from 3- to 12-months of age. *Child Development*, 77, 680-695.
- Reynolds, G.D., & Richards, J.E. (2007). Infant heart rate: A developmental psychophysiological perspective. In L.A. Schmidt & S.J. Segalowitz (Eds.), *Developmental Psychophysiology* (pps 173-210). Cambridge, UK: Cambridge Press.
- Courage, M.L, & Richards, J.E. (2008). Attention. In M.M. Haith and J.B. Benson (Eds.), *Encyclopedia of infant and early childhood development* (pps 106-117). Oxford, UK: Elsevier.
- Richards, J.E. (2008). Attention in young infants: A developmental psychophysiological perspective. In C.A. Nelson & M. Luciana (Eds.), *Handbook of developmental cognitive neuroscience*. Cambridge, MA, US: MIT Press.
- Reynolds, G.D., & Richards, J.E. (2008). Attention and early brain development. In Tremblay, R.E., Barr, R.G., Peters, R.DeV., & Boifin, M. (Eds.). *Encyclopedia on Early Childhood Development* (pps 1-5). http://www.child-encyclopedia.com/documents/Reynolds-RichardsANGxp.pdf
- Reynolds, G.D, & Richards, J.E. (2009). Cortical source analysis of infant cognition. *Developmental Neuropsychology*, *3*, 312-329.
- Richards, J.E. (2009). Attention in the brain and early infancy. In S.P. Johnson (Ed.), *Neoconstructism: The new science of cognitive development.*
- Richards, J.E. (2010). Infant attention, arousal, and the brain. In Oaks, L.M., Cashon, C.H., Casaola, M., & Rakison, D.H. (Eds). *Infant Perception and Cognition: Recent advances, emerging theories, and future directions*. NY: Oxford University Press.
- Richards, J.E. (2010). The development of attention to simple and complex visual stimuli in infants: Behavioral and psychophysiological measures. *Developmental Review*, *30*, 203-219.

- Richards, J.E., Reynolds, G.D., & Courage, M.I. (2010). The neural bases of infant attendion. *Current Directions in Psychological Science*, 19, 41-16.
- Reynolds, G.D., Courage, M.L., & Richards, J.E. (2010). Infant attention and visual preferences: Converging evidence from behavior, Event-Related Potentials, and cortical source localization. *Developmental Psychology*, *46*, 886-904.
- Pimpek, T.A., Kikorian, H.L., Richards, J.E., Anderson, D.R., Lund, A.R., & Stevens, M. (2010). Video comprehensibility and attention in very young children. *Developmental Psychology*, 46, 1283-1293.
- Reynolds, G.D., Courage, M.L., & Richards, J.E. (2010). The development of attention. *Oxford Handbook of Cognitive Psychology*. NY: Oxford University Press.
- Sanchez, C.E., Richards, J.E., & Almli, C.R. (2011). Neurodevelopmental MRI brain templates for children from 2 weeks to 4 years of age. *Developmental Psychobiology*. Doi:10. 1-02/dev20579; *57*, 77-91.
- McCleery, J.P. Surtees, A., Graham, K.A., Richards, J.E., & Apperly, I.A. (2011). The neural and cognitive time-course of theory of mind. *Journal of Neuroscience*, 31, 12849-12854.
- Mallin, B.A., & Richards, J.E. (2012). Peripheral stimulus localization by infants of moving stimuli on complex backgrounds. *Infancy*, *17*, 692-714.
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# RECENTLY COMPLETED STUDIES, MANUSCRIPTS IN PREPARATION:

- Hunter, S.K., & Richards, J.E. (revising). Development of eye movements in young infants in response to complex dynamic stimuli.
- Richards, J.E., and Stevens, M. (revising). Central stimulus comprehensibility and distractibility in young children's television viewing.
- Pannenton, R., & Richards, J.E. (revising). Developmental differences in infants' visuall-defined and heart rate-defined attention to unimodal and multimodal displays. Revision submitted.
- Richards, J.E. (in preparation). Tools for cortical source analysis of EEG and ERP in infants and preschool children.
- Hunter, S.K., & Richards, J.E. (revising). Effects of testing position and stimulus characteristics on reflexive saccades.
- Hunter, S.K., & Richards, J.E. (in preparation). Characteristics of prosaccades and antisaccades in young children.
- Richards, J.E. (in preparation) Cortical activity during directional selectivity of antisaccades and prosaccades.

#### **UNPUBLISHED MANUSCRIPTS:**

- Richards, J.E. (unpublished manuscript). Measurement characteristics of respiratory sinus arrhythmia in R-R intervals, in 14, 20, and 26 week old infants.
- Richards, J.E. (unpublished manuscript). Neurophysiological basis of eye movements, and the effect of attention on eye movements in the development of infant saccades, smooth pursuit, and visual tracking.
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- The development of sustained visual attention in infants from 14 to 26 weeks of age. J.E. Richards, Southeastern Conference in Human Development, Athens, GA., April, 1984.
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- Localizing infant covert attention with scalp ERP's. J.E. Richards, Cognitive Neurosciences Society, Boston, MA. April, 1997.
- Heart rate and behavioral measures of infant attention during toy play. J. Lansink, J.E. Richards, and S. Mintz, Society for Research in Child Development, Washington, D.C. April, 1997.
- Attentional inertia in infants and preschool aged children. K. Cronise, M.R. Sylvia, & J.E. Richards, Society for Research in Child Development, Washington, D.C. April, 1997.
- Localizing infant covert attention with scalp ERP's. J.E. Richards, Society for Psychophysiological Research, Cape Cod, MA. October, 1997.
- Localizing the development of covert attention in infants using scalp event-related-potentials. J.E. Richards, International Society for Infancy Studies, Atlanta, GA, April, 1998.
- Individual differences in infants' recognition of briefly presented visual stimuli. J.E. Frick & J.E. Richards, International Society for Infancy Studies, Atlanta, GA, April, 1998.
- Peripheral stimulus localization during visual attention in 5-, 8-, 11-, and 14-week old infants. S.K.Hunter & J.E. Richards, International Society for Infancy Studies, Atlanta, GA, April, 1998.
- Theoretical implications of infant distractibility in selective attention. J.M. Lansink & J.E. Richards, International Society for Infancy Studies, Atlanta, GA, April, 1998.
- Development of extended visual fixation in early childhood. J.E. Richards, Society for Research in Child Development, Albuquerque, NM, April, 1999.
- Development of multimodal attention in young infants: Modification of the startle reflex by attention. J.E. Richards, Society for Psychophysiological Research, Granada, Spain, October, 1999.
- Cortical indices of saccade planning following covert orienting in 20-week-old infants. J.E. Richards, Society for Psychophysiological Research, Granada, Spain, October, 1999.
- Los indices cortezas del los saccades planeados despues de "Covert Orienting" in los infantes que tengan 20 semanas. J.E. Richards, Congreso Latinamericano Neuropsychologica, Varadero, Cuba, October, 1999.

- The effect of attention on the recognition of brief visual stimuli: An ERP study. J.E. Richards, International Conference for Infancy Studies, Brighton, England, July 2000.
- The development of covert attention to peripheral targets and its relation to attention to central visual stimuli. J.E. Richards, International Conference for Infancy Studies, Brighton, England, July 2000.
- Developmental changes in the "main sequence" relation in infant saccades. S.K. Hunter & J.E. Richards, International Society for Infancy Studies, Brighton, England, July, 2000.
- The effect of cueing on presaccadic ERP for pro- and anti-saccades. J.E. Richards, Society for Psychophysiological Research, San Diego, CA, October, 2000.
- The effect of attention on the recognition of brief visual stimuli in infants: An ERP study. J.E. Richards, Society for Psychophysiological Research, San Diego, CA, October, 2000.
- Using high-density EEG recording to localize cortical sources of infant attention.. J.E. Richards, Society for Research in Child Development, Minneapolis, MN, April, 2001.
- Extended visual fixation and distractibility during television viewing in the early preschool years. J.E. Richards, Society for Research in Child Development, Minneapolis, MN, April, 2001.
- Cortical sources of the P1 / N1 validity effect in spatial cueing in young infants. J.E. Richards, International Society for Infancy Studies, Toronto, CA. April, 2002.
- Developmental changes in the main sequence using interesting visual stimuli. B. McKinney, E. Lewis, V. Wills, & J.E. Richards, International Society for Infancy Studies, Toronto, CA. April, 2002.
- Getting distracted from the main task: Infants and preschoolers watching TV! J.E. Richards, International Society for Infancy Studies, Toronto, CA. April, 2002.
- Differential heart-rate activity in infants to uni- and multimodal events. R.P. Cooper & J.E. Richards, Society for Psychophysiological Research, Washington, D.C. October, 2002.
- Cortical sources of ERP for infants' recognition of briefly presented visual stimuli. J.E. Richards, Society for Psychophysiological Research, Washington D.C.. October, 2002.
- Cortical source analysis of ERP of individual participants in psychophysiological experiments. J.E. Richards, Society for Psychophysiological Research, Washington, D.C. October, 2002.
- The impact of familiarization on electrophysiological correlates of recognition memory in infants. G. Reynolds & J.E. Richards, Cognitive Neuroscience Society, New York, NY. March, 2003.
- Recovering cortical dipole sources from scalp-recorded event-related-potentials using component analysis: Principal component analysis and independent component analysis. J.E. Richards, Cognitive Neuroscience Society, New York, NY. March, 2003.
- Infant attention and cortical sources of ERP for recognition of briefly presented visual stimuli. J.E. Richards, Society for Research in Child Development, Tampa, FL. April, 2003.
- Differential heart-rate activity in infants to uni- and multimodal events. R.P. Cooper & J.E. Richards, Society for Research in Child Development, Tampa, FL. April, 2003.

- Infant localization of visual and dynamic peripheral stimuli. J.L. Moore, J.F. Stephens, B.A. McKinney, & John E. Richards, Southeastern Psychological Association, Atlanta, GA. March, 2004.
- Developmental and individual differences in infants' attention as a function of stimulus characteristics. M. Courage, G.D. Reynolds, & J.E. Richards, International Society for Infancy Studies, Chicago, IL. April 2004.
- Infant peripheral stimulus localization of dynamic stimuli. B.A. McKinney & J.E. Richards, International Society for Infancy Studies, Chicago, IL. April 2004.
- The convergence of electroencephalographic and heart rate measures of attention in infancy. G.D. Reynolds & J.E. Richards, International Society for Infancy Studies, Chicago, IL. April, 2004.
- Cortical source localization of infant visual attention and recognition memory. G.D. Reynolds & J.E. Richards, International Society for Infancy Studies, Chicago, IL. April 2004.
- A quantitative method to use high-density EEG recordings to localize cortical sources of infant cognitive activity. J.E. Richards, International Society for Infancy Studies, Chicago, IL. April 2004.
- Perspectives on infants' visual attention: Developmental change and individual differences. J.E. Richards, International Society for Infancy Studies, Chicago, IL. April 2004.
- Looking at and interacting with comprehensible and incomprehensible Teletubbies. A. Frankenfield, J.E. Richards, T.A. Pempek, H.L. Kirkorian, & D.R. Anderson, International Society for Infancy Studies, Chicago, IL. April 2004.
- Infant visual attention: Peripheral localization of life-like video stimuli. C.R. Crane, B.A. Mallin, & J.E. Richards, Arizona Psychological Association, Tuscon, AZ. October, 2004.
- What babies look at: Developmental trends and individual differences in infants' attention to pattern. M. Courage, G.D. Reynolds, & J.E. Richards, Society for Research in Child Development, Atlanta, GA. April 2005
- Infant visual preferences within the modified-oddball ERP paradigm. G.D. Reynolds, M.Courage, & J.E. Richards, Society for Research in Child Development, Atlanta, GA. April, 2005.
- Television program comprehensibility and distractibity in 1- and 2-year-old children. J.E. Richards, Society for Research in Child Development, Atlanta, GA. April, 2005.
- Infant visual preferences within the modified-oddball ERP paragirm. G.D. Reynolds, M.Courage, & J.E. Richards, Society for Psychophysiological Research, Lisbon, Portugal, October, 2005.
- Infant visual preferences within the modified-oddball ERP paradigm. G.D. Reynolds, M.Courage, & J.E. Richards, Cognitive Neurosciences Society, San Francisco, April, 2006.
- Infant visual preferences within the modified-oddball ERP paradigm. G.D. Reynolds, M.Courage, & J.E. Richards, International Conference on Infant Studies, Kyoto, Japan, June, 2006.
- Television program comprehensibility and distractibity in 6- to 24-month-old children. M. Stevens & J.E. Richards, International Conference on Infant Studies, Kyoto, Japan, June, 2006.

- Realistic head models for cortical source analysis in infant participants. J.E. Richards, International Conference on Infant Studies, Kyoto, Japan, June, 2006.
- Realistic head models for cortical source analysis in infant participants. J.E. Richards, Society for Research in Child Development, Boston, April, 2007.
- Infant sustained attention affects brain areas controlling covert orienting. J.E. Richards, Society for Research in Child Development, Boston, April, 2007.
- Infant sustained attention affects brain areas controlling covert orienting. J.E. Richards, International Conference on Infant Studies, Vancouver, B.C., Canada, April, 2008.
- Video comprehensibility and attention in very young children. T. A. Pempek, D. Anderson, M. Stevens, & J.E. Richards, International Conference on Infant Studies, Vancouver, B.C., Canada, April, 2008.
- What's inside a baby's head? J.E. Richards, International Conference on Infant Studies, Vancouver, B.C., Canada, April, 2008.
- Different ages, different stages: A neurodevelopmental age-based database of normal brain development for MRI. C.E. Sanchez, A.A. Basilakos, J.E. Richards, Cognitive Neurosciences Society, San Francisco, March, 2009;
- Cortical sources of infant visual preferences. G.D. Reynolds, M.L. Courage, & J.E. Richards. Cognitive Neurosciences Society, San Francisco, March, 2009;;
- Different ages, different stages: A neurodevelopmental age-based database of normal brain development for MRI. C.E. Sanchez, A.A. Basilakos, J.E. Richards, Society for Research in Child Development, Denver, March, 2009;
- Cortical sources of infant visual preferences. G.D. Reynolds, M.L. Courage, & J.E. Richards. Society for Research in Child Development, Denver, March, 2009;
- Different ages, different stages: A neurodevelopmental age-based database of normal brain development for MRI. C.E. Sanchez, A.A. Basilakos, J.E. Richards, Society for Psychophysiological Research, Berlin, October 2009
- Cortical sources of infant visual preferences. G.D. Reynolds, M.L. Courage, & J.E. Richards. Society for Psychophysiological Research, Berlin, October 2009.
- A neurodevelopmental MRI database for infants. C.E. Sanchez, J.E. Richards, R. Almli, International Conference on Infant Studies, Baltimore, MD, March, 2010.
- What's inside a baby's head? Structural and functional brain development in infants. International Conference on Infant Studies, Baltimore, MD, March, 2010.
- McIlreavy, M., & Richards, J.E. (2011). High-Density EEG in Infancy: Heart Rate Defined Sustained Attention and Inattention. Society for Research in Child Development, April, 2011.
- McIlreavy, M., & Richards, J.E. (2011). Internal and External Attention in Infancy: Heart Rate Defined Classifications and Gamma Band Activity. Society for Research in Child Development, April, 2011.
- Sanchez, C.E., Richards, J.E., Schatz, J., & White, D. (2011). Age-Specific Pediatric Templates for Normalization and Segmentation of MRIs: An Example of Their Utility in a Pediatric PKU Sample. Society for Research in Child Development, April, 2011.

- Richards, J.E. (2011). Tools for Cortical Source Analysis of EEG and ERP for Infants and Young Children. Society for Research in Child Development, April, 2011.
- Reynolds, G.D., & Richards. J.E. (2011). Processing of Repeated and Non-Repeated Visual Stimuli in Infancy: Visual Preferences and Event-Related Potentials. Society for Research in Child Development, April, 2011.
- Apperly, I., McCleery, J., Surtees, A., Graham, K., & Richards, J.E. (2011). The cognitive basis and neural time-course of very simple visual perspective-taking. British Psychological Society, May, 2011.
- McCleery, J. P., Graham, K. A., Richards, J. E., Allen, H. A., Ceponiene, R., & Nielsen, D. (2011). Neural mechanisms of pre-lexical speech processing: A view through repetition suppression. Poster presented in session Language: Auditory, Comprehension, and Gene Studies, at the 41st Annual Meeting of the Society for Neuroscience. Washington, D.C. November, 2011.
- Richards, J.E., Stevens, M., & Connington, A. (2012). A stereotaxic MRI brain atlas for infant participants. Poster presented at the 3<sup>rd</sup> UK Paediatric Neuropsychology Symposium, University College London Institute for Child Health, London, England. April, 2012.
- McCleery, J.P., & Richards, J.E. (2012). Comparing realistic head models for cortical source locationization of infant event-related potentials. Poster presented at the 3<sup>rd</sup> UK Paediatric Neuropsychology Symposium, University College London Institute for Child Health, London, England. April, 2012.
- Tonnsen, B.K., Richards, J.E., & Roberts, J.E. (2012). Experimental and parent-reported self-regulation in infants at high- and low-risk for autism. Poster presented at the 3<sup>rd</sup> UK Paediatric Neuropsychology Symposium, University College London Institute for Child Health, London, England. April, 2012.
- Richards, J.E., Stevens, M., & Connington, A. (2012). A stereotaxic MRI brain atlas for infant participants. Poster presented at the International Conference on Infant Studies, Minneapolis, MN. June, 2012.
- McCleery, J.P., & Richards, J.E. (2012). Comparing realistic head models for cortical source locationization of infant event-related potentials. Poster presented at the International Conference on Infant Studies, Minneapolis, MN. June, 2012.
- Richards, J.E. (2012). Cortical source analysis of ERP in infant spatial cueing. Poster presented at the International Conference on Infant Studies, Minneapolis, MN. June, 2012.
- Richards. J.E. (2012). Structural and functional neuroimaging in infants. Invited symposium, International Conference on Infant Studies, Minneapolis, MN. June 2012.
- Tonnsen, B.L., Richards, J.E., Robinson, A.R., Deal, S. & Roberts, J. E. (2012). Visual attention in infants at high risk for autism: Comparing fragile X to autism siblings. Symposium presentation at the 13<sup>th</sup> International Fragile X Conference, Miami, FL, July, 2012.
- Henderson, J.M., Luke, S.G., Schmidt, J., & Richards, J.E. (2012). Co-registration of eye movements and ERPs in normal and mindless reading. Poster presented at the Society for the Neurobiology of Language, San Sebastian, Spain. October, 2012.
- Tonnsen, B. L., Richards, J.E. & Roberts, J. E. (2013). Heart activity and visual attention in infants at risk for autism. Symposium presentation at the 46<sup>th</sup> Annual Gatlinburg Conference on Research in Developmental Disabilities, San Antonio, TX, March, 2013.

- Xie, W., Richards, J.E., Lee, K., Gong, Q., and Lei, D. (2013). The construction of MRI brain templates for Chinese children and adolescents from 8 years to 16 years of age. Paper presented at the SYNAPSE & SENC conference, Columbia, SC, March, 2013.
- Emberson, L., Palmeri, H., Cannon, G., Richards, J.E., and Aslin, R.N (2013). Differences in repetition suppression across sensory systems in 6-month-olds: Using NIRS to compare infant and adult neural function. Poster presented at the Cognitive Neuroscience Society, San Francisco, April 2013..
- Zieber, N., & Richards, J.E. (2013). Developmental changes in the infant N290 in response to faces and toys. Poster presented at the Society for Research in Child Development, Seattle, WA April, 2013.
- Tonnsen, B.L., Richards, J.E., & Roberts, J.E. (2013). Visual preferences in infants at high-risk for autism: Behavioral and psychophysiological cross-group comparisons. Poster presented at the Society for Research in Child Development, Seattle, WA April, 2013
- Richards, J.E., Stevens, M., & Connington, A. (2013). A stereotaxic MRI brain atlas for infant participants. Poster presented at the Society for Research in Child Development, Seattle, WA April, 2013
- Richards, J.E. (2013). Cortical source analysis of ERP in infant spatial cueing. Poster presented at the Society for Research in Child Development, Seattle, WA April, 2013
- Richards, J.E. (2013). Discussant for paper symposium, Getting more out of EEG: New inroads to the developing brain. Presented at the Society for Research in Child Development, Seattle, WA April, 2013
- Schmidt, J., Henderson, J.M., Luke, S.G., & Richards, J.E. (2013). Co-registration of eye movements and event-related-potentials in reading. Poster presented at the Vision Science Society, Naples, FL May, 2013.
- Richards, J.E. (2013). Cortical sources of ERP in the prosaccade and antisaccade task using realistic source models. Poster presented at the Society for Psychophysiological Research, Firenze, Italy, October 2013.
- Schmidt, J., Henderson, J.M., Luke, S.G., & Richards, J.E. (2013). Co-registration of eye movements and event-related-potentials in reading. Poster presented at the Society for Psychophysiological Research, Firenze, Italy, October 2013.
- Zieber, N., & Richards, J.E. (2014). The developmental origins in infants' ERP responses to faces and objects. Poster presented at the International Conference on Infant Studies, Berlin, Germany, July 2014.
- Zieber, N., Richards, J.E., Tonnsen, B., Roberts, J.E. (2014). Neural correlates of face processing in infants at risk for Autism and infants with Fragile X Syndrome. Poster presented at the International Conference on Infant Studies, Berlin, Germany, July 2014.
- Xie, W., & Richards, J.E. (2014). The effects of interstimulus intervals on infant attention and face perception: An event-related potentials study. Poster presented at the International Conference on Infant Studies, Berlin, Germany, July 2014.
- Richards, J.E. (2014). Scalp locations projected to cortical anatomy for infant NIRS. Poster presented at the International Conference on Infant Studies, Berlin, Germany, July 2014.
- Richards, J.E. (2014). Scalp locations projected to cortical anatomy for infant NIRS. Poster presented at the International Conference on Infant Studies, Berlin, Germany, July 2014.
- Emberson, L, Richards, J.E., Aslin, R. (2014). The infant occipital cortex responds to a predictive cross-modal stimulus. Paper presented at the International fNIRS conference, Toronto, CA October, 2014.

- Lee, K., Ding, X.P, Richards, J.E., Xie, W., & Fu, G. (2014). Neural correlates of own and other race recognition in preschoolers: A functional near infrared spectocopy (fNIRS) study. Paper presented at the International fNIRS conference, Toronto, CA October, 2014.
- Xie, W., & Richards, J.E. (2015). The effects of interstimulus interval on infant attention and face perception: An event-related potentials study. Poster presented at the Society for Research in Child Developmen conferencet, Philadelphia, PA. March, 2015.
- Xie, W., Richards, J.E., Lei, D., Lee, K., & Gong, Q. (2015). Comparison of brain development trajectory between Chinese and US children and adolescents. Poster presented at the Society for Research in Child Development conference, Philadelphia, PA. March, 2015.
- Richards, J.E. (2015). Scalp locations projected to cortical anatomy for infant NIRS. Paper presented at the Society for Research in Child Development conference, Philadelphia, PA. March, 2015.
- Ding, X.P., Richards, J.E., Xie, W., Fu, G., & Lee, K. (2015). Neurodevelopment of honesty and dishonesty: A functional near-infrared spectroscopy (fNIRS) study. Paper presented at the Society for Research in Child Development conference, Philadelphia, PA. March, 2015.
- Roberts, J.E., Tonnsen, B., Guy, M., Hahn, L, & Richards, J.E. (2015). Biobehavioral correlates of Autism Spectrum Disorder in infants with Fragile X Syndrome. 48<sup>th</sup> Annual Gatlinburg Conference, Gatlinburg, TN, April, 2015.
- Tonnsen, B., Richards, J.E., & Roberts, J.E. (2015). Heart-defined sustained attention in infant siblings of children with Autism. 48<sup>th</sup> Annual Gatlinburg Conference, Gatlinburg, TN, April, 2015.
- Lanfer, B., Spangler, R. Richards J.E., & Paul-Jordanov, I. (2015). Age-specific template head models for EEG source analysis. Paper presented at the Organization for Human Brain Mapping Meeting, Honolulu HA, June, 2015.
- Richards, J.E., Guy, M.W., & Zieber, N. (2015). Cortical sources of the face-sensitive N290 component in infants. Paper presented at the Flux Conference, Leiden, Netherlands, September 2015.
- Richards, J.E., Sanchez, C., Phillips-Meek, M., & Xie, W. (2015). A Neurodevelopmental MRI database for neuroimaging across the lifespan. Paper presented at the Flux Conference, Leiden, Netherlands, September 2015.
- Guy, M., Zieber, N, & Richards, J.E. (2016). The cortical sources of face sensitive ERP components in infancy. Poster presented at the International Conference on Infant Studies, New Orleans, LA, May, 2016.
- Guy, M., Richards, J.E., Tonnsen, B., & Roberts, J.E. (2016). Neural correlates of face processing associated with risk of autism spectrum disorders in infancy. Poster presented at the International Conference on Infant Studies, New Orleans, LA, May, 2016.
- Xie, W., & Richards, J.E. (2016). The Relation between Infant Covert Orienting, Sustained Attention and Brain Activity. Poster presented at the International Conference on Infant Studies, New Orleans, LA, May, 2016.
- Richards, J.E., Guy, M., Zieber, N., Xie, W., & Roberts, J.E. (2016). Brain changes in response to faces in the first year. Paper presented at the International Conference on Infant Studies, New Orleans, LA, May, 2016.
- Emberson, L., Riccio, J., Richards, J.E., Guillet, R., & Aslin, R. (2016). Comparing How Statistical Learning Supports Perceptual Expectations in Infants at Low and High Risk for

- Developmental Delays. Poster presented at the International Conference on Infant Studies, New Orleans, LA, May, 2016.
- Richards, J.E., Guy, M., Zieber, N., Xie, W., & Roberts, J.E. (2017). Brain changes in response to faces in the first year. Poster presented at the Society for Research in Child Development, Austin, TX. April, 2017.
- Xie, W., & Richards, J.E. (2017). The Relation between Infant Sustained Attention and EEG Oscillations: An EEG Power Spectrum and Cortical Source Analysis Study. Poster presented at the Society for Research in Child Development, Austin, TX. April, 2017.
- Guy, M. W., Richards, J. E., & Roberts, J. E. (2017). Accurate head models for cortical source analysis of face processing in infants at high risk of autism spectrum disorders. Poster presented at the Society for Research in Child Development, Austin, TX. April, 2017.
- Buzell, G.A., Richards, J.E., White, L.K., Pine, D.S., & Fox, N.A. (2017). Development of the error-monitoring system from ages 9-35: unique insight provided by MRI-constrained source localization of EEG. Poster presented at the Cognitive Neuroscience Society, San Francisco, CA, April, 2017.
- Richards, J.E., Guy, M., Zieber, N., Xie, W., & Roberts, J.E. (2017). Brain changes in response to faces in the first year. Poster presented at the Society for Psychophysiologial Research. Vienna, Austria. October 2017.
- Richards, J.E. (2018). Media effects on young children: An attention development perspective. Media Exposure and Child Development, NIH, January 2018.
- Richards, J.E. (2018). Development of Diffuse Optical Tomography sensitivity in infants: Brain localization of NIRS activity. Sackler Developmental Psychobiology Meeting, Hawaii, January 2018.
- Guy. M., Richards, J.E. & Roberts, J.E. (2018). Cortical Source Analysis of ERP Responses to Faces in Etiologically Distinct Groups of Infants at High-Risk for ASD. INSAR, Rotterdam, Netherlands, May 2018.
- Richards, J.E. (2018). Development of diffuse optical tomography sensitivity in infants. International Conference on Infant Studies, Philadelphia, July, 2018.
- Richards, J.E., & Stevens, M.L. (2018). Television program comprehensibility and distractibility in 24-month children. International Conference on Infant Studies, Philadelphia, July, 2018.
- Xie, W., & Richards. J.E. (2018). Development of Brain Functional Connectivity and Its Relation to Infant Sustained Attention in the First Year of Life. International Conference on Infant Studies, Philadelphia, July, 2018.
- Guy. M., Richards, J.E. & Roberts, J.E. (2018). Accurate head models for cortical source analysis in infants at high risk of autism spectrum disorders. International Conference on Infant Studies, Philadelphia, July, 2018.

# **INVITED TALKS, SYMPOSIA, CONFERENCES:**

- Development of sustained attention in 3 to 6 month olds. Department of Psychology, University of Pittsburgh, PA. May, 1988.
- Assessment of respiratory sinus arrhythmia and developmental psychophysiology. Western Psychiatric Institute and Clinic, University of Pittsburgh, Pittsburgh, PA. June, 1988.
- Discussant, Conference on Physiological Basis of Higher Mental Functions, National Institutes of Child Health and Human Development, Philadelphia, PA. May, 1989.
- Heart rate defined phases of infant visual information processing. Langfield Lecture Series, Princeton University, June, 1990.
- The effects of attention on infant behavior in the paired-comparison paradigm. Albert Einstein College of Medicine, Bronx, NY. June, 1990.
- Modulating heart rate changes in older infants. Fifth International Congress of Psychophysiology, Budapest, Hungary. July, 1990.
- The development of visual attention in young infants. Russell Research Award Lecture Series, University of South Carolina, Columbia, SC. September, 1991.
- The development of sustained attention in young infants. Graduate Center of the City University of New York, New York, NY. November, 1991.
- Development of sustained attention and distractibility in early infancy. Albert Einstein College of Medicine, Bronx, NY. November, 1991.
- Theoretical issues in psychophysiological research: Cognitive and perceptual development. Conference on Psychophysiology as a Theoretical Science, National Institute of Mental Health, Washington, D.C., March, 1993.
- Developmental cognitive neuroscience with human infants. School of Medicine, University of South Carolina, Columbia, SC. August, 1993.
- Infant selective attention development....In the blink of an eye! Wake Forest University, Winston-Salem, NC. September, 1993.
- Development of attention in young infants to television and objects. Children's Televisions Workshop, New York, NY. March, 1994.
- Development of selective attention in infants from 8 to 26 weeks of age: Evidence from central-peripheral attention systems. Workshop honoring Frances Graham, Society for Psychophysiological Research, October, 1994.
- Sustained attention in infants. Midlands Technical College, Psychology Seminar Series, March, 1995.
- Why don't infants look at peripheral stimuli? Infancy Group, Human Frontiers Science Program, Kings College, Cambridge University, Cambridge, England, September, 1996.
- Sustained attention in the infant's first year. Cognitive Development Unit, Medical Research Council, University College, London, England, September, 1996.
- The development of sustained attention in infants. Department of Psychology, Virginia Polytechnic University, October, 1996.
- The development of sustained attention in infants. Department of Psychology, University of Alabama at Birmingham, March, 1997.
- Development of attention in young infants: Some "arousing" studies. International Society of Developmental Psychobiology, Miami, FL, October, 1999.

- Development of attention in young infants: Some "arousing" studies. Sackler Institute Meeting, New Orleans, LA, February, 2000.
- Studying the mind by examining the brain. Department of Psychology, University of South Carolina, Columbia, SC, February, 2000.
- Saccade planning in adults and infants: Brain control of voluntary movement. Department of Psychology, Virginia Polytechnic University, March, 2000.
- Why are infants in-distractible during visual attention? Department of Psychology, Washington University, January, 2002.
- Brain bases of attention-directed eye movements in infants. James S. McDonnell Foundation, Workshops on Infant Cognition, Venice, Italy, March, 2002.
- Principal components analysis of event-related-potentials for cortical source analysis. Birbeck College, University of London, London, England, September 2002.
- Neuroimaging in infants using ERP. Birbeck College, University of London, London, England, September, 2002.
- Localizing cortical areas involved in cognitive function in infants: Perspectives from spatial cueing. Duke University, October, 2002.
- Why are infants in-distractible during visual attention? Department of Psychology, Emory University, February, 2004.
- Developmental cognitive neuroscience of sustained attention in infants. Department of Psychology, Emory University, February, 2004.
- Recognition memory and attention in infants. 5<sup>th</sup> Annual Frontiers in Neuroscience Research Day, Medical University of South Carolina, March, 2004.
- Converging measures of infant attention. The John Merck Fund Summer Institute on the Biology of Developmental Disabilities. Princeton University, July, 2004. (Teaching)
- Spatial orienting and arousal in infant: Brain bases and development. Pennsylvania State University, April, 2005.
- EEG and ERP analysis using EGI. Pennsylvania State University, April, 2005 (one-day teaching workshop).
- Why are infants in-distractible during visual attention? First Hayward Endowment Annual Lecture, Department of Psychology, East Tennessee State University, April, 2006.
- Infant visual preference, recognition memory, attention and the brain. Pennsylvania State University, October, 2006.
- Infant visual preference, recognition memory, attention and the brain. Virginal Polytechnic University, October, 2006.
- Development of infant attention to multimodal stimuli: Relation between arousal and specific attention processes. Indiana University, January, 2007.
- What's inside a baby's head? Sloan-Ketterling Eye Institute, San Francisco, CA, September, 2007.
- Does it matter that the infant's mind is in its brain? And the brain is in a body? York University, November, 2007.
- What's inside a baby's head? Attention processes revealed by source analysis of EEG. 23rd Annual Winter Conference on Current Issues in Developmental Psychobiology, Cozumel, Mexico, January 2008.
- What's inside a baby's head? J.E. Richards, International Conference on Infant Studies, Vancouver, B.C., Canada, April, 2008. (invited presentation)

- What's inside a baby's head? J.E. Richards, National Science Foundation, Washington DC, April, 2008. Invited presentation.
- Brain (and head) steretotaxic atlas for infants and children: Application to EEG / ERP cortical source analysis. Sloan-Kettering Vision Institute, San Francisco, CA. April, 2008.
- What's inside a baby's head? Attention processes revealed by source analysis of EEG. Duke University, September, 2008 (invited presentation).
- A neurodevelopmental database / stereotaxic atlas for MR imaging of infants and children. 24th Annual Winter Conference on Current Issues in Developmental Psychobiology, St Croix, Virgin Islands, January, 2009.
- What's inside a baby's head? Structural and functional brain development in infants. International Conference on Infant Studies, Baltimore, MD, March, 2010. (invited plenary address).
- Neural basis of infant familiarity preferences (and novelty preferences). McDonnell Research Group on Infant Cognitive Development, Barcelona Spain, December, 2010.
- Neural basis of infant familiarity preferences (and novelty preferences). 26th Annual Winter Conference on Current Issues in Developmental Psychobiology, Herradura, Costa Rica, January, 2011.
- What's inside a baby's head? Structural and functional brain development in infants. University of Brmingham, Birmingham, England, UK. April, 2011.
- Infant attention to "realistic" video stimuli. 27<sup>th</sup> Annual Winter Conference on Current Issues in Developmental Psychobiology, Honolulu, Hawaii, January, 2012.
- Brains for all the ages. 27<sup>th</sup> Annual Winter Conference on Current Issues in Developmental Psychobiology, Honolulu, Hawaii, January, 2012.
- Cortical source analysis of ERP in infant recognition and face/object perception. Marie Curie Visiting Professor program, Center for Brain and Cognitive Development, Birckbeck College, University of London, March, 2012.
- Structural and functional neuroimaging in infants. Invited symposium, International Conference on Infant Studies, Minneapolis, MN. June 2012.
- Cortical source analysis of infant spatial cueing. Hearing Interest Group, Medical University of South Carolina, Charleston, SC. March, 2013.
- We know "What's inside a baby's head". Department of Psychology, University of Tennessee, Knoxville, TN. March, 2013
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