Chirstopher Ryne Estabrook, PhD

Curriculum Vitae

Address: Department of Medical Social Sciences Phone: 312-503-1459

Northwestern University

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Chicago, IL, 60611 E-Mail: restabrook@northwestern.edu

Education

Ph.D. Psychology (2010) University of Virginia

Concentration: Quantitative Psychology

Dissertation Title: Measuring What's Changing: Redesigning Measurement

Models with Derivative Transformed Data Advisor: John R. Nesselroade, Ph.D.

M.A. Psychology (2007) University of Virginia

Concentration: Quantitative Psychology

Pre-Dissertation Title: A Monte Carlo Simulation Study Assessment of the

Reliability of Within-Person Variability Advisor: John R. Nesselroade, Ph.D.

B.S. Psychology (2005) Arizona State University

Honors: Summa Cum Laude, Graduate of Barrett Honors College Thesis Title: The Effects of Scarcity and Equity in Social Dilemmas

Advisor: Darwyn E. Linder, Ph.D.

Academic Appointments

2013-Present Assistant Professor, Department of Medical Social Sciences, Northwestern University

Affiliated Faculty Member: Department of Psychology (2013-Present)

Affiliated Faculty Member: Innovations in Developmental Sciences (2014-Present)

2010–2013 *Postdoctoral Fellow*, Department of Psychiatry, Virginia Institute for Psychiatric and Behavioral Genetics, Virginia Commonwealth University

2008–2009 Adjunct Professor, Department of Psychology, University of Virginia

2005–2010 Graduate Student, Department of Psychology, University of Virginia

Awards & Honors

Maury Pathfinder Prize (2009) Department of Psychology, University of Virginia Award given for best pre-dissertation project (master's thesis) in 2007-2008

Travel Award (2009) Society of Multivariate Experimental Psychology (SMEP) Travel stipend to present at 2009 SMEP Conference

Fellow (2008-2010) LIFE Program

Multidisciplinary consortium for research collaboration in lifespan development (Max Planck Institute for Human Development, Freie Universität Berlin, the Humboldt-Universität zu Berlin, University of Michigan, University of Virginia, & University of Zurich)

Huskey Research Prize (2008) Robert J. Huskey Graduate Research Exhibition,

University of Virginia

First Place, Social and Behavioral Science Paper Presentation

Summa Cum Laude (2005) Arizona State University

Psi Chi (2004) Arizona State University

Professional Organizations

Member (Current): Association for Psychological Science (APS), Behavior Genetics Association (BGA)

Member (Past): American Psychological Association, Society for Research in Child Development (SRCD), Affiliate (APA), Psi Chi (Arizona State University)

Professional Activities

Institutional Service

- **2017-2019** Statistical Consulting, Area of Scholarly Concentration (AOSC), Feinberg School of Medicine Provide statistical instruction & mentorship to 27 M.D. students completing their first research projects.
- 2013-2015 Faculty Lead, DevSci Data Repository, Northwestern University Manage needs assessment for joint effort between University developmental community and University Libraries to create repository for shared data access across Northwestern campuses.
- 2013-present Member, DevSci Leadership Council, Northwestern University University-wide initiative for collaboration across research areas related to lifespan development broadly defined.
- **2013-present** Member, Psychometric and Statistical Core, Department of Medical Social Sciences, Northwestern University

Teaching (Classroom)

Fall 2008 PSYC 771: Quantitative Methods I (Co-Instructor of Record) University of Virginia, Department of Psychology

Teaching (Workshop & Seminar)

- October 2018 Instructor, *HSIP 430: Introduction to Longitudinal Analysis*, "A Premier on Longitudinal Data Analysis"

 Northwestern University
- October 2017 Instructor, *HSIP 430: Introduction to Longitudinal Analysis*, "A Premier on Longitudinal Data Analysis"

 Northwestern University
- **October 2016** Instructor, *NU-PATIENT Bootcamp on CER Methods and Application*, Northwestern University
- **October 2015** Instructor, *Advanced Genetic Epidemiology Statistical Workshop (AGES)*, Virginia Commonwealth University
- **September 2014** Instructor, *NU-PATIENT Bootcamp on CER Methods and Application*, Northwestern University
- May 2014 Instructor, Advanced Structural Equation Modeling With OpenMx, Association for Psychological Science
- October 2012 Instructor, Advanced Genetic Epidemiology and Statistical

 Molecular Genetics Workshop (AGESMoG), Virginia Commonwealth University
- **Spring 2011** HGEN 691: Statistical Computing with R (Lecturer) School of Medicine, Virginia Commonwealth University
- **October 2010** Instructor, Advanced Genetic Epidemiology and Statistical Molecular Genetics Workshop (AGESMoG), Virginia Commonwealth University
- May 2010 Instructor, APA-Advanced Training Institute

 Structural Equation Modeling in Longitudinal Research, University of Virginia
- May 2010 Teaching Assistant, Structural Equation Modeling with OpenMx LIFE Academy, University of Virginia
- **Jul 2009–Aug 2009** Instructor, *Professional Issues Summer Workshop Series*Graduate Research Council, Department of Psychology, University of Virginia
- **Jun 2009** Teaching Assistant, APA–Advanced Training Institute

 Structural Equation Modeling in Longitudinal Research, University of Virginia
- Mar 2009 Lecturer, Lifespan Development Seminar, Department of Psychology, University of Virginia
- Jun 2008 Teaching Assistant, APA–Advanced Training Institute

 Structural Equation Modeling in Longitudinal Research, University of Virginia

Trainees

Dissertation Committee Member: Phillip Curtis, Elaine Thompson

Trainee Grant Applications (Funded): Phillip Curtis (NIH F31), Elaine Thompson (NIH F31)

Trainee Grant Applications (Pending): Yael Stern (NIH F31), Sharif Badawy (NIH K23)

Editorial & Review Responsibilities

Journal (Editorial Board): Gerontology (2016-present).

Journal (Ad Hoc Review): Aging, Neuropsychology and Cognition; Applied Developmental Science; Behavior Genetics; Developmental Psychology; Gerontology; International Journal of Behavioral Development; Journal of Abnormal Psychology; Journal of Personality and Social Psychology: Personality Processes and Individual Differences; Journal of Traumatic Stress; Journal of Research in Personality; Multivariate Behavioral Research; Nicotine & Tobacco Research; Personality and Social Psychology Bulletin; PLOSone; Psychological Methods; Psychological Trauma: Theory, Research, and Practice; Quality of Life Research; Research in Human Development; Scientific Reports.

Grant Review: Swiss National Centre of Competence in Research LIVES (NCCR LIVES). .

Conference: Developmental Methodology (2016): Panel Review Chair, Intra-individual Longitudinal Analysis Panel.

Conference (**Ad Hoc Review**): Society for Multivariate Experimental Psychology (Student Pre-Conference); Society for Research in Child Development.

Funding Support

Active

Projects with variable effort over time show range of funded effort.

R34 AT009685 (2018–2023) National Center for Complementary and Integrative Health *Learning Affective Regulation to Keep Stress and Pain Under control.* (PI: Judith T. Moskowitz, PhD). **Role**: Co-I, 2018–present (Northwestern University), 5-20% Effort.

R01 DC014709 (2016-2020) National Institute on Deafness and Other Communication Disorders

The Role of Parent Phenotype in Parent-Mediated Language Interventions for Autism (PI: Megan Roberts, PhD).

Role: Co-I, 2015–present (Northwestern University), 10% Effort.

R01 NS102500 (2018-2023) National Institutes of Health

Subcortical auditory processing in sports-related concussions and contact/collision sports (PI: Kraus).

Role: Co-I, 2018–present (Northwestern University), 10% Effort.

Contribution: Oversee longitudinal analyses of event-contingent design.

U01 DC017135 (2018–2023) National Institute on Deafness and Communication Disorders

Maximizing outcomes for preschoolers with developmental language disorders: testing the effects of a sequentially targeted naturalistic intervention (PI: Kaiser).

Role: Co-I, 2018–present (Northwestern University), 10-40% Effort.

Contribution: Oversee longitudinal analyses of autism RCT across U01 sites.

R01 MH107652 (2016–2021) National Institute on Mental Health

Generating an Earlier Science of When to Worry: A Neurodevelopmental, Transactional Approach to Characterizing Irritability Patterns Beginning in Infancy (PI: Lauren S Wakschlag, PhD).

Role: Co-I, 2016–present (Northwestern University), 10-20% Effort.

U01 MH082830-06 (2008–2019) National Institute on Mental Health

Dimensions of Early Temper Loss and Low Concern: Clinical Utility and Mechanisms (MAPS Study Renewal) (PI: Lauren S. Wakschlag, PhD).

Role: Co-I, 2014–present (Northwestern University), 10% Effort.

U02C-CA186878-01 (2014-2018) National Cancer Institute

The National Person-Centered Assessment Resource (PCAR) (PI: David Cella, PhD)

Role: Co-I, 2014–present (Northwestern University), 10-20% Effort.

U01 HL133704 (2016–2021) National Heart, Blood, and Lung Institute

Integrated analysis of autonomic biomarkers in prematurity-related ventilatory control: Determination of neurorespiratory maturation and predictors of co-morbidity risk (PI: Aaron Hamvas).

Role: PI, Northwestern Sub-Award, 2016–present (Northwestern University), 5-15% Effort.

U24 OD023319 (2016-2019) National Institutes of Health

ECHO PRO Research Resource: A Developmentally based Measurement Science Framework for Assessing Environmental Exposure and Child Health (PIs: Gershon/Cella).

Role: Co-I, 2017–present (Northwestern University), 20% Effort.

P30 AR072579 (2016–2019) National Institutes of Health

Core Center for Clinical Research at Northwestern University (PI: Sharma).

Role: Co-I, 2017–present 2-10% Effort.

Completed

R01 AG18436 (2011–2016) National Institute on Aging, National Institute on Mental Health

Personality and Well-Being Trajectories in Adulthood (PI: Daniel K. Mroczek, PhD).

Role: Co-I, 2013–present (Northwestern University), 5-30% Effort.

P01 AG31726 (2012–2017) National Institute on Aging

Integrative Analysis of Longitudinal Studies of Aging (PI: Scott Hofer).

Role: Co-I, Northwestern Sub-Award, 2013–present (Northwestern University), 5-15% Effort.

R03 DC012639 (2012-2016) National Institute on Deafness and Other Communication Disorders

Pre-Implantation Communication Treatment for Children with Hearing Loss (PI: Megan Roberts, PhD).

Role: Co-I, 2015-present (Northwestern University), 10% Effort.

Ryne Estabrook, PhD Curriculum Vitae

R01 DC013274 (2014-2019) National Institute on Deafness and Other Communication Disorders

Interactive Specialization in Language Impairment (PI: James Booth, PhD).

Role: PI, Northwestern Sub-Award, 2014–2016 (Northwestern University), 5% Effort.

U54 CA153511 (2010-2016) National Cancer Institute

Reded En Accion: The National Hispanic/Latino Cancer Network Research Network (PI: Frank Penedo, PhD)

Role: Co-I, 2015–present (Northwestern University), 10% Effort.

HHSN2752012000071 National Institutes of Health

National Childrens Study: Vanguard Study & Health Measurement Network (PI: Richard Gershon, Ph.D.).

Role: Co-I, 2015 (Northwestern University), 10% Effort.

R01 DA023653-01A-2 (2009–2014) National Institute on Drug Abuse

Prenatal smoking and the substrates of disruptive behavior in early life (PIs: Lauren S. Wakschlag, PhD & Kimberly A. Espy, PhD).

Role: Co-I, 2013–2015 (Northwestern University), 10% Effort.

U01 DA036939-01 (2014-2019) National Institute on Drug Abuse

Multilevel influences on HIV and substance use in a YMSM cohort (PI: Brian Mustanski, PhD).

Role: Co-I, 2014 (Northwestern University), 10% Effort.

R25 DA026119 (2010–2013) National Institute on Drug Abuse

Research Education in Statistical Genetics of Substance Abuse (PI: Michael C. Neale, PhD.)

Role: Post-Doctoral Fellow, 2010–2013 (Virginia Commonwealth University).

T32 AG20500 (2002–2014) National Institute on Aging

Training in Quantitative Modeling in Aging Research (PI: John R. Nesselroade, PhD).

Role: Pre-Doctoral Fellow, 2005–2010 (University of Virginia).

Publications

Journal Articles and Chapters

Student Co-Authors Italicized

- **Estabrook, R.** (in press). From Factors of Curves to Factors of Change. In Ferrer, E., Boker, S.M., & Grimm, K.J. *Advances in longitudinal models for multivariate psychology.* New York: Taylor & Francis.
- Deveney, C.M., Briggs-Gowan, M., Pagliaccio, D., **Estabrook, R.**, Zobel, E., Burns, J., Norton, E.S., Pine, D.S., Leibenluft, E., Brotman, M., & Wakschlag, L.S. (accepted). Temporally sensitive neural measures of inhibition in preschool children with varying irritability symptoms. *Developmental Psychobiology*.
- Fox, R. S., Moreno, P. I., Yanez, B., **Estabrook, R.**, Thomas, J., McGinty, H. L., Mohr, D. C., Begale, M. J., Flury, S. C., Perry, K., Kundu, S. D., & Penedo, F. J. (accepted). Integrating PROMIS CATs into a web-based psychosocial intervention for advanced prostate cancer. *Health Psychology*.

- Roberts, M., Stern, Y., Hampton, L., Grauzer, J., Miller, A., Levin, A., Kornfeld, B., Davis, M., Kaat, A., & Estabrook, R. (2019). Beyond pass-fail: Examining the potential utility of two thresholds in the autism screening process. *Autism Research*, 12(1), 112-122.
- Kaat, A. J., Blackwell, C. J., Estabrook, R., Burns, J. L., Petitclerc, A., Briggs-Gowan, M. J., Gershon, R. C., Cella, D., Pearlman, S. B. & Wakschlag, L. S. (2019). Linking the Child Behavior Checklist with the Multidimensional Assessment Profile of Disruptive Behavior: Advancing a dimensional spectrum approach to disruptive behavior. *Journal of Child and Family Studies*, 2, 343353.
- Curtis, P.R., Kaiser, A.P., Estabrook, R., & Roberts, M.Y. (2019). The Longitudinal Effects of Early Language Intervention on Children's Problem Behaviors. *Child Development*, 90 (2), 576-592.
- Dirks, M., Recchia, H. **Estabrook, R.**,; Howe, N., Petitclerc, A, Burns, J. L., Briggs-Gowan, M., & Wakschlag, L. S. (2019). Differentiating Typical from Atypical Perpetration of Sibling-Directed Aggression during the Preschool Years. *Journal of Child Psychology and Psychiatry*, 60(3), 267-276.
- Moreno, P. I., Ramirez, A. G., San Miguel-Majors, S. L., Castillo, L., Fox, R. S., Gallion, K. J., Munoz, E., **Estabrook, R.**, Perea, A., Lad, T., Hollowell, C., & Penedo, F. J. (2019). Unmet supportive care needs in Hispanic/Latino cancer survivors: Prevalence and associations with patient-provider communication, satisfaction with cancer care, and symptom burden. *Supportive Care in Cancer*, 27(4), 1383-1394.
- Briggs-Gowan, M. J., Estabrook. R., Grasso, D., Henry, D., Burns, J. L., McCarthy, K. J., Pollak, S., & Wakschlag, L. S. (2019). Parsing Dimensions of Family Violence Exposure in Early Childhood: Shared and Specific Contributions to Emergent Psychopathology and Impairment. *Child Abuse and Neglect*, 87, 100-111.
- **Estabrook, R.**, Cella, D., Zhao, F., Manola, J., DiPaola, R. S., Wagner, L. I., & Haas, N. (2018). Variability of item-level change in multi-item scales: an example from ECOG-ACRIN study E2805. *Quality of Life Research*, 27(6), 1589-1597.
- Roberts, M. Y., *Curtis, P.R.*, **Estabrook, R.**, Norton, E. S., Davis, M., Burns, J. L., Briggs-Gowan, M., Petitclerc, A., & Wakschlag, L. S. (2018). Talking Tots and the Terrible Twos: Early Language and Disruptive Behavior in Toddlers. *Journal of Developmental & Behavioral Pediatrics*. 39(9), 709-714.
- Wiggins, J. L., Briggs-Gowan, M. J., Estabrook, R., Brotman, M. A., Pine, D. S., Leibenluft, E., & Wakschlag, L. S. (2018). Identifying clinically significant irritability in early childhood. *Journal of the American Academy of Child and Adolescent Psychiatry*, 57 (3), 191-199.
- Newcomb, M. E., Swann, G., Estabrook, R., Corden, M., Begale, M., Ashbeck, A., Mohr, D., & Mustanski, B. (2018). Patterns and Predictors of Compliance in a Prospective Diary Study of Substance Use and Sexual Behavior in a Sample of Young Men Who Have Sex With Men. Assessment, 25(4), 403–414.
- Wu, H. & Estabrook, R. (2016). Identification of Partially Invariant Models for Ordered Categorical Outcomes. *Psychometrika*, 81 (4), 1014–1045.
- **Estabrook, R.**, Massey, S. H., Clark, C. A. C., Burns, J. L., Mustanski, B., Cook, E. H., O'Brien, T. C., Espy, K. A., & Wakschlag, L. S. (2016). Separating family-level and direct exposure effects of smoking during pregnancy on offspring externalizing symptoms: Bridging the behavior genetic and behavior teratologic divide. *Behavior Genetics*, 46 (3), 389-402.

- Neale. M. C., Hunter, M. D., Pritikin, J. N., Zahery, M., Brick, T. R., Kirkpatrick, R. M., **Estabrook. R.**, Bates, T. C., Maes, H. H. & Boker, S. M. (2016). OpenMx 2.0: Extended Structural Equation and Statistical Modeling. *Psychometrika*, 81 (2), 535-49.
- Boker, S. M., Brick, T., Pritikin, J., Wang, Y., Von Oertzen, T., Brown, D., Lach, J. Estabrook, R., Hunter, M. D., Maes, H. & Neale, M. C., (2015). Maintained Individual Data Distributed Likelihood Estimation. *Multivariate Behavioral Research*, 50 (6), 706-20.
- **Estabrook, R.**, Sadler, M., & McGue, M. (2015). Differential Item Functioning in the CAMDEX Depression Scale Across Middle Age and Late-Life. *Psychological Assessment*, 27 (4), 1219-1233.
- Wakschlag, L. S.¹, **Estabrook, R.**¹, Henry, D., Burns, J. L., Perlman, S. B., Pine, D. S., Leigenluft, E., & Briggs-Gowan, M. (2015). Clinical application of a dimensional approach: The normal:abnormal spectrum of early irritability. *JAACP (Journal of the American Association of Child & Adolescent Psychiatry*), 54 (8), 626-34.
- Petitclerc, A., Briggs-Gowan, M. **Estabrook, R.**, Burns, J. L., Anderson, E., McCarthy, K., & Wakschlag, L. S. (2015). Contextual Variation in Young Children's Observed Disruptive Behavior on the DB-DOS: Implications for Early Identification. *Journal of Child Psychology and Psychiatry*, 56 (9), 1008-16
- Nichols, S., Briggs-Gowan, M., Henry, D., Estabrook, R., Burns, J. L., Kestler, J., Berman, G. & Wakschlag, L. S. (2015). Punishment insensitivity in early childhood: A developmental, dimensional approach. *Journal of Abnormal Child Psychology*, 43 (6), 1011-23.
- **Estabrook, R.** (2015). Evaluating Measurement of Dynamic Constructs: Defining a Measurement Model of Derivatives. *Psychological Methods*. 20 (1), 117-141.
- Massey, S. H., Estabrook, R., O'Brien, T. C., Pine, D. S., Burns, J. S., Jacob, S., Cook, E. H., & Wakschlag, L. S. (2015). Preliminary Evidence for the Interaction of the Oxytocin Receptor Gene (OXTR) and Face Processing in Differentiating Prenatal Smoking Patterns. *Neuroscience Letters*. 584, 259-264.
- Kubarych, T. S., Kendler, K. S., Aggen, S. H., Estabrook, R., Edwards, A., Clark, S. L., Martin, N. G., Hickie, I. B., Neale, M. C. & Gillespie, N. A. (2014). Comparing Factor, Class, and Mixture Models of Cannabis Initiation and DSM Cannabis Use Disorder Criteria, Including Craving, in the Brisbane Longitudinal Twin Study. Twin Research and Human Genetics. 17(2), 89-98.
- **Estabrook, R.** & Neale, M. C. (2013). A Comparison of Factor Score Estimation Methods in the Presence of Missing Data. *Multivariate Behavioral Research*. 48 (1), 1-27.
- **Estabrook, R.**, Grimm, K. J. & Bowles, R. P. (2012). A Monte Carlo Simulation Study Assessment of the Reliability of Within–Person Variability. *Psychology and Aging*. 27 (3), 560-576.
- Verhulst, B., & Estabrook, R. (2012). Using Genetic Information to Test Causal relationships in Cross-Sectional Data. *Journal of Theoretical Politics*. 24 (3), 328-344.
- **Estabrook, R.** (2012). Factorial Invariance: Tools and Concepts for Strengthening Research. In Tenenbaum, G., Eklund, R., & Kamata, A. (Eds.) *Measurement in Sport and Exercise Psychology*. Champaign, IL: Human Kinetics.

¹Authors contributed equally.

- Boker, S., Neale, M., Maes, H., Wilde, M., Spiegel, M., Brick, T., Spies, J., **Estabrook, R.**, Kenny, S., Bates, T., Mehta, P., & Fox, J. (2011). OpenMx: An Open Source Extended Structural Equation Modeling Framework. *Psychometrika*, 76 (2), 306-317.
- Grimm. K. J., Ram, N., & Estabrook, R. (2010). Nonlinear Structured Growth Mixture Models in Mplus and OpenMx. *Multivariate Behavioral Research*, 45 (6), 887-909.
- Wang, L., Zhang, Z. & **Estabrook. R.** (2010). Longitudinal mediation analysis of training intervention effects. In S.-M. Chow, E. Ferrer, & F. Hsieh (Eds), *Statistical methods for modeling human dynamics: An interdisciplinary dialogue*. New Jersey: Lawrence Erlbaum Associates.
- Nesselroade, J. R., & **Estabrook, R.** (2008). Factor invariance, measurement, and studying development over the lifespan. In H. Bosworth & C. Hertzog (Eds.), *Aging and Cognition: Research Methodologies and Empirical Advances* (pp. 39–52). Washington, D.C.: American Psychological Association.
- Gerstorf, D., Ram, N., **Estabrook, R.**, Schupp, J., Wagner, G.G. & Lindenberger, U. (2008). Life Satisfaction Shows Terminal Decline in Old Age: Longitudinal Evidence from the German Socio-Economic Panel Study (SOEP). *Developmental Psychology*, 44, 4, 1148-1159.

Books

Grimm, K. G., Ram, N. & Estabrook, R. (2016). Latent Growth Modeling with Structural Equation and Multilevel Modeling Software. Guilford Press.

Case Reports, Letters, Editorials

Reimann, M., Schilke, O., **Estabrook, R.**, & Cook, K. S. (2018). Reply to Goldfarb et al.: On the heritability and socialization of trust and distrust. Proceedings of the National Academy of Sciences, 115(10), E2151-E2152.

Software Publications

- Neale. M. C., Hunter, M. D., Pritikin, J. N., Zahery, M., Brick, T. R., Kirkpatrick, R. M., Estabrook. R., Bates, T. C., Maes, H. H. & Boker, S. M. (2014). *OpenMx: Multipurpose Software for Statistical Modeling* (Version 2.0-2.7.9), University of Virginia, Department of Psychology, Box 400400, Charlottesville, VA 22904. http://openmx.psyc.virginia.edu/
- Boker, S., Neale, M., Maes, H., Wilde, M., Spiegel, M., Brick, T., Spies, J., Estabrook, R., Kenny, S., Bates, T., Mehta, P., Fox, J. (2012). *OpenMx: Multipurpose Software for Statistical Modeling* (Versions 1.0-1.4.3), University of Virginia, Department of Psychology, Box 400400, Charlottesville, VA 22904. http://openmx.psyc.virginia.edu/

Reprints & Translations

Nesselroade, J. R., & **Estabrook, R.** (2010). Facteur d'invariance, mesure et étude développementale au cours du lifespan (D. Fagot & P. Golay, Trans). In A. de Ribaupierre, P. Ghisletta, T. Lecerf & J. L. Roulin (Eds.), *Identité et spécificités de la psychologie différentielle (pp.*

31–47). Rennes, France: Presses Universitaires Pur Rennes. (Reprinted from *Aging and Cognition: Research Methodologies and Empirical Advances* (pp. 39–52), by H. Bosworth & C. Hertzog, (Eds.), 2008, Washington, D.C.: American Psychological Association).

Published Abstracts

- Deveney, C., Pagliaccio, D., **Estabrook, R.**, Burns, J. L., Voss, J., Brotman, M., Briggs-Gowan, M., & Wakschlag, L. S. (2017). Temporally Sensitive Neural Measures of Inhibition in Preschool Children with Varying Irritability Symptoms. *Biological Psychiatry*, 81 (10), S17.
- **Estabrook, R.**, O'Brien, T. C., Espy, K. A. & Wakschlag, L. S. (2014). The Importance of Reliable Longitudinal Measurement in the Assessment of Prenatal Smoking and its Relation to Youth Externalizing Disorder [Abstract]. *Behavior Genetics*, 44 (6), 658-658.
- **Estabrook, R.** & Neale, M. C. (2013). Genetic Factor Scoring from Common and Independent Pathway Models [Abstract]. *Behavior Genetics*, 43 (6), 516-516.
- **Estabrook, R.** & Neale, M. C. (2011). Reliability of Factor Scores and Related Methods with Missing Data & the Impact of Genetically-Informative Designs [Abstract]. *Behavior Genetics*, 41 (6), 904-905.
- **Estabrook, R.**, Salthouse, T. A., & Nesselroade, J. R. (2009). Higher Order Invariance and Age Comparisons in Depression, Neuroticism, and Anxiety [Abstract]. *Multivariate Behavioral Research*, 44 (6), 850.

Chaired Conference Symposia

- **Estabrook, R.** (2016, September). *Moving from Panel Designs into Developmentally-Sensitive Dynamic Modeling*. Developmental Methodology, Whitefish, MT.
- **Estabrook, R.** (2016, May). Approaching Complex Research Designs From the Perspective of Missing Data. Association for Psychological Science, Chicago, IL.
- **Estabrook, R.** (2013, May). *Re-imagining Complex Models as Extended Structural Equation Models in OpenMx*. Association for Psychological Science, Washington, DC.

Conference & Colloquia Presentations

- **Estabrook, R.** (2018, Sept). Dynamic Measurement Invariance using Dynamical Systems Approaches: The Measurement Model of Derivatives. Presented at Developmental Methods, Whitefish, MT.
- Fox. R. S., Moreno, P. I., Yanez, B., Estabrook, R., Thomas, J., McGinty, H. L., Mohr, D. C., Begale, M. J., Dahn. J., Flury, S. C., Perry, K., Kundu, S. D., & Penedo, F. J. (submitted). Effects of a technology-assisted CBT-based intervention on the psychosocial functioning of men with advanced prostate cancer. Submitted to the Society of Behavioral Medicine (SBM), New Orleans, LA.
- Moreno, P. I., Ramirez, A. G., San Miguel-Majors, S. L., Fox, R. S., Castillo, L., Gallion, K. J., Munoz, E., **Estabrook, R.**, Perez, A., Lad, T., Hollowell, C., & Penedo, F. J. (submitted). *Unmet Supportive Care Needs in Latino Cancer Survivors: Prevalence, Severity, and Associations with Symptom Burden*

- and Satisfaction with Cancer Care. Submitted to the Society of Behavioral Medicine (SBM), New Orleans, LA.
- Deveney, C., Pagliaccio, D., **Estabrook, R.**, Burns, J. L., Voss, J., Brotman, M., Briggs-Gowan, M., & Wakschlag, L. S. (2017, May). *Temporally Sensitive Neural Measures of Inhibition in Preschool Children with Varying Irritability Symptoms*. Society of Biological Psychiatry, San Diego, CA.
- Moreno, P. I., Ramirez, A. G., San Miguel, S., Fox, R. S., Castillo, L., Gallion, K. J., Munoz, E., Estabrook, R., & Penedo, F. J. (accepted). Positive patient experience in cancer care, self-efficacy, and health-related quality of life in Latino cancer survivors. Poster presentation submitted to the American Psychosomatic Society Annual Meeting, Seville, Spain.
- **Estabrook, R.** (2016, September). *Comparing and Combining Panel Designs and Dynamical Systems Models*. Developmental Methodology, Whitefish, MT.
- Estabrook, R. (2016, May). *Multivariate Extreme Group Sampling: Thinking Outside the Box*. Association for Psychological Science, Chicago, IL.
- Mroczek, D. K., Kranz-Graham, E., Estabrook, R., Schalet, B. D., Turiano, N. A., Spiro, A., Piccinin, A., & Hofer, S. M. (2014, November). Multi-Study Analysis of Health Behaviors as Mediators of the Personality-Mortality Association. Presentation at the Gerontological Society of America Meeting in Washington, D.C.
- Mroczek, D. K., **Estabrook, R.**, Schalet, B. D., Kranz-Graham, E., Turiano, N. A. & Spiro, A. (2014, November). Do Personality and Health Influence Each Other Over Time? Dynamic Associations Between Traits and Physical Health Over a 4-Decade Longitudinal Followup. Presentation at the Gerontological Society of America Meeting in Washington, D.C.
- **Estabrook, R.** (2014, September). Merging Multilevel and Structural Equation Models to Estimate Random Change Points in Multi-Phasic Growth Models. Presentation at the Society for Research in Child Development Special Topic Meeting: Developmental Methodology in San Diego, CA.
- Mroczek, D. K., **Estabrook, R.**, Schalet, B. D., Kranz-Graham, E., & Spiro, A. (2014, July). *The dynamic association between personality and health over 40 years*. Presentation at the European Congress of Psychology Meeting in London, EN.
- **Estabrook, R.**, O'Brien, T. C., Espy, K. A. & Wakschlag, L. S. (2014, June). *The Importance of Reliable Longitudinal Measurement in the Assessment of Prenatal Smoking and its Relation to Youth Externalizing Disorder.* Presentation at the Behavior Genetics Association Meeting in Charlottesville, Va.
- **Estabrook, R.** (2014, May). Extending A Constrained-Mixture Model for the Analysis of Multi-Phasic Growth with Random Transition Points. Presentation at the Association for Psychological Science, San Fransisco, CA.
- **Estabrook, R.**, Mroczek, D. K., Schalet, B. D., Kranz-Graham, E., & Spiro, A. (2014, May). *Dynamic Relationship Between Personality and Health in the VA Normative Aging Study* Poster presentation at the Association for Psychological Science, San Fransisco, CA.
- Staples, A. D., Dodson, G., Boker, S. M. & **Estabrook, R.** (2013, November). *Age Differences in Emotion Experience and Expression during Conversation*. Poster presented at the Gerontological Society of America Meeting in New Orleans, LA.

- Neale, M. C. & Estabrook, R. (2013, October). Weighted Least Squares with Missing Data. Presentation at the Society for Multivariate Experimental Psychology Meeting in St. Petersburg, FL.
- **Estabrook, R.** & Neale, M. C. (2013, June). *Genetic Factor Scoring from Common and Independent Pathway Models.* Presentation at the Behavior Genetics Association Meeting in Marseille, FR.
- Neale, M. C., **Estabrook, R.**, Gillespie, N., Hahn, E. & Aggen, S. (2013, June). *New Developments in OpenMx: Applications to Substance Use and Abuse.* Presentation at the Behavior Genetics Association Meeting in Marseille, FR.
- **Estabrook, R.** (2013, May). Specifying Growth Curves with Random Transitions as Constrained Mixture Models. Presentation at the Association for Psychological Science, Washington, DC.
- **Estabrook, R.** (2012, December). *Genetic Factor Scores: Pulling Numbers Out of Your ACE.* Presentation at the NIDA Genetics Consortium Meeting.
- **Estabrook, R.** (2012, February). *Testing the Number of Factors with Longitudinal Data*. Presentation at the Society for Research in Child Development (SRCD) Meeting in Tampa, FL.
- **Estabrook, R.** & Neale, M. C. (2011, June). Reliability of Factor Scores and Related Methods with Missing Data & the Impact of Genetically-Informative Designs. Presentation at the Behavior Genetics Association Meeting in Newport, RI.
- **Estabrook, R.** (2010, May). *Using Dynamics to Evaluate Measurement in Affective Data*. Presentation at the Association for Psychological Science Meeting in Boston, MA.
- **Estabrook, R.** (2009, October). *Higher-Order Invariance Using Idiographic Filtering*. Presentation at the Society for Multivariate Experimental Psychology in Gleneden Beach, OR.
- Boker, S. M., Neale, M. C., Maes, H., Mehta, P. D., Wilde, M. J., Brick, T. R., Spies, J. R., Spiegel, M., Estabrook, R., Hunter, M. D., Kenny, S., Fox, J., & Bates, T. (2009, October). *OpenMx: An Open Source and Extensible SEM Framework*. Presentation at the Society for Multivariate Experimental Psychology in Gleneden Beach, OR.
- Boker, S. M., Neale, M. C., Maes, H., Wilde, M. J., Spiegel, M., Brick, T. R., Spies, J. R., Estabrook, R., Kenny, S., Bates, T., Mehta, P. D., Fox, J. (2009, October) *OpenMx: Multipurpose Software for Statistical Modeling*. Facilitating Interdisciplinary Research: Methodological and Technological Innovation in the Behavioral and Social Sciences Meeting; Bethesda, Maryland; October 8, 2009.
- **Estabrook, R.** (2009, April). *Terminal Change in Cognition and Its Relationship With Blood Pressure: Evidence From the Maine–Syracuse Longitudinal Study.* Presentation at the Robert J. Huskey Graduate Research Exhibition in Charlottesville, VA.
- **Estabrook, R.** (2008, April). *Reliability and Intraindividual Variability*. Presentation at the Robert J. Huskey Graduate Research Exhibition in Charlottesville, VA.
- Gerstorf, D., Ram, N., Estabrook, R., Schupp, J., Wagner, G.G. & Lindenberger, U. (2008, April). Life Satisfaction Shows Terminal Decline in Old Age: Longitudinal Evidence from the German Socio-Economic Panel Study (SOEP). Poster presented at Cognitive Aging Conference in Atlanta, GA.
- **Estabrook, R.**, Grimm, K.J. & Bowles, R.P. (2006, November). *Reliability of Individual Standard Deviations*. Presentation at the Gerontological Society of America Conference in Dallas, TX.