

CURRICULUM VITAE
JOEL S. STEELE

Education

PhD 2011	Quantitative Psychology, University of California, Davis
MA 2009	Quantitative Psychology, University of California, Davis
BS 2005	Biology, California State University, Sacramento

Employment

Academic

- Director of Indigenous Health Research, University of North Dakota. (April 2025 – *Present*)
- Associate Professor (with tenure), University of North Dakota. (Sept 2022 – *Present*)
- Adjunct Associate Professor, OHSU (Feb 2023 – *Present*)
- Associate Professor (with tenure), Portland State University. (Sept 2017 – Sept 2022)
- Adjunct Faculty, University of North Dakota. (Sept 2021 – Sept 2022)
- Assistant Professor, Portland State University. (Sept 2011 – June 2017)
- Graduate Student Researcher, Neuro-development of Reasoning Ability (NORA), UC Davis. (Sept 2009 – Aug 2011)
- Graduate Student Researcher, Minority and Disadvantaged Student's Math and Science Achievement Gaps: the role of Developmental and Environmental Influence from 9 months through 8th grade, UC Davis. (Jun 2008 – Aug 2011)
- Graduate Student Researcher, Dynamic of Dyadic Interactions Project, UC Davis. (Sept 2007 – Jun 2010)
- Graduate Student Researcher, Center for Mind and Brain, UC Davis. (Jan 2010 – Mar 2010)

Nonacademic

- Programmer III, The M.I.N.D. Institute, UC Davis Medical Center. (Feb 2005 – Mar 2008)
- Senior Web Application Developer, Technical Lead, CRDeZign. (May 2003 – Nov 2004)
- Senior Web Application Developer, Studio Arno. (Nov 2001 – Mar 2002)

- Web Application Developer, Venture Tech. (SRK LLC). (Jun 2000 – Jul 2001)
- Web Application Developer, The Marketing Store. (Aug 1998 – Jun 2000)

Dissertation

The modeling of dyadic interactions using deterministic and stochastic differential equations, 2011, Emilio Ferrer PhD, and Kevin J. Grimm PhD

Refereed Publications

Book Chapters

- Steele, J.S., Gonzales, J.E., & Ferrer, E (2018). Uses and Limitation of Continuous-Time Models to Examine Dyadic Interactions. In K. van Montfort, J.H.L. Oud, and M. Voelkle (Eds.), *Continuous Time Modeling in the Behavioral and Related Sciences*. Springer.
- Ferrer, E., & Steele, J.S. (2014). Differential Equations for Evaluating Theoretical Models of Dyadic Interactions. In P.C.M. Molenaar, K.M. Newell, and R.M. Lerner (Eds.), *Handbook of developmental systems theory and methodology* (pp. 345 – 368). NY: Guilford Press.
- Ferrer, E., & Steele, J.S. (2012). Dynamic systems analysis of affective processes in dyadic interactions using differential equations. In G.R. Hancock and J.R. Harring (Eds.), *Advances in longitudinal methods in the social and behavioral sciences*. Charlotte, NC: Information Age Publishing.

Journal Articles

- Chimehi, B., Larivière-Chartier, J., Wallace, B., Beattie, Z., Ault, L., Dey, R., Sheehy, L., Anderson, L., Steele, J., & Thomas, N. (2025). Predicting Caregiver Burden Using Motion Sensor Data and Machine Learning: A Supportive Approach for Persons with Cognitive Decline. In *2025 IEEE Medical Measurements & Applications (MeMeA)* (pp. 1-6). IEEE.
- Nadeau, M., Steele, J. S., Lyon-Colbert, A., Kelliher, A., Barnett, J., Begay, A., & Warne, D. (2025). Premature mortality patterns among American Indians in North Dakota, 2010–2019 (pre-pandemic). *Frontiers in Public Health*, *13*, 1395399.

- Au-Yeung, W. T. M., Miller, L. M., Lindauer, A., Beattie, Z. T., Mattek, N., Steele, J. S., & Kaye, J. A. (2024). Disrupted Sleep at Night is Associated with a Higher Level of Agitation Throughout the Week in People Living with Cognitive Decline. *Alzheimer's & Dementia*, 20, e090591.
- Thomas, N. W., Chimehi, B., Lariviere-Chartier, J., Ault, L., Wallace, B., Beattie, Z. T., Sheehy, L., Steele, J. S., & Miller, L. M. (2024). Dementia Care Research and Psychosocial Factors. *Alzheimer's & dementia: the journal of the Alzheimer's Association*, 20, e092292.
- Kaye, J. A., N. Mattek, A. B. Mar, J. Marcoe, E. J. Hanna, A. Pierce, Y. Shang, K. M. Wright, J. A. Wyatt, D. Schwartz, S. Gothard, W.-T. Au-Yeung, J. S. Steele, Z. Beattie, K. Duff, and L. Silbert (2024). DETECT-AD-Digital Evaluations and Technologies Enabling Clinical Translation for Alzheimer's Disease: Results of amyloid screening methodologies in a simulated anti-amyloid clinical trial using digital biomarkers as primary outcome measures. *Alzheimer's Dement.*, 20: e091154. <https://doi.org/10.1002/alz.091154>
- Thomas, N.W., Chimehi, B., Lariviere-Chartier, J., Ault, L., Wallace, B., Beattie, Z.T., Sheehy, L., Steele, J.S. & Miller, L.M., (2024). Assessment of Weekly Fluctuations in Zarit Burden Interview Scores in Caregivers of Individuals with Cognitive Impairment. *Alzheimer's Dement.*, 20: e092292. <https://doi.org/10.1002/alz.092292>,
- Brunelle, D. C., Larson, K. J., Bundy, A., Roemmich, J. N., Warne, D., Steele, J. S., & Redvers, N. (2024). Chokeberry, an Indigenous Food's Effects on Inflammation Markers in American Indians. *Current Developments in Nutrition*, 8.
- Miller, L., W. T. Au-Yeung, K. Lyons, J. S. Steele, and J. Kaye (2024). SENSING SPOUSAL CARE DYADS' ACTIVITY PATTERNS: TWO NOVEL DYADIC METRICS FOR CAPTURING TIME USE. *Innovation in Aging* 8.Supplement 1, 434–434.
- Roh, S., Lee, Y. S., Moon, H., Steele, J. S., Warne, D. K., & Lee, J. A. (2024). Cognitive Impairment and Social Determinants of Health among Indigenous Women. *The Gerontologist*, gnae072.
- Steele, J. & Grimm, K. (2024). Using SymPy (Symbolic Python) for understanding Structural Equation Modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 1-12.

- Thomas, N., B. Chimehi, J. Lariviere-Chartier, F. Knoefel, Z. Beattie, J. S. Steele, L. Miller, and B. Wallace (2024a). STRENGTHS AND LIMITATIONS OF USING DIFFERENT SENSOR TECHNOLOGIES TO ASSESS CLINICAL OUTCOMES IN DYADIC CARE. In: *Innovation in Aging* 8.Supplement 1, pp. 434–434, <https://doi.org/10.1093/geroni/igae098.1412>
- Au-Yeung, W.-T. M., L. M. Miller, A. Lindauer, Z. T. Beattie, N. Mattek, J. S. Steele, and J. A. Kaye (2024b). “Disrupted Sleep at Night Is Associated with a Higher Level of Agitation Throughout the Week in People Living with Cognitive Decline”. In: *Alzheimer’s & Dementia* 20, e090591.
- Lindauer, A., Gothard, S., Bernard, H., & Steele, J. S. (2023). Care partner burden and emergency service use: what is the link? *Alzheimer’s & Dementia*, 19, e077671.
- Kaye, J.A., Marcoe, J., Mar, A.B., Hanna, E.J., Pierce, A., Silbert, L.C., Shang, Y., Schwartz, D., Gothard, S., Mattek, N., Au-Yeung, W.-T.M., Steele, J.S. & Beattie, Z.T. (2023), DETECT-AD (Digital Evaluations and Technologies Enabling Clinical Translation for Alzheimer’s Disease): A simulated anti-amyloid clinical trial using digital biomarkers as primary outcome measures. *Alzheimer's Dement.*, 19: e071888. <https://doi.org/10.1002/alz.071888>
- Muurling M., Au-Yeung W.M., Beattie Z., Wu C., Dodge H., Rodrigues N.K., Gothard S., Silbert L.C., Barnes L.L., Steele J.S., & Kaye J. (2023). Differences in Life Space Activity Patterns Between Older Adults With Mild Cognitive Impairment Living Alone or as a Couple: Cohort Study Using Passive Activity Sensing. *JMIR Aging*, 6, e45876. DOI: [10.2196/45876](https://doi.org/10.2196/45876)
- Granger, A.M., Kahn, K.B., & Steele, J.S. (2023) Surveilling threat: The roles of ideology and threat perceptions in support for Islamophobic policy. *Analyses of Social Issues and Public Policy*, 23, 192– 213. DOI:[10.1111/asap.12335](https://doi.org/10.1111/asap.12335)
- Miller LM, Steele JS, Wu C-Y, Kaye J, Dodge HH, Gonzales M, & Lyons KS. (2022) Depressive symptoms in older adult couples: Associations with dyadic physical health, social engagement, and close friends. *Frontiers in Psychiatry*, 13. DOI: [10.3389/fpsy.2022.989182](https://doi.org/10.3389/fpsy.2022.989182)
- Miller, L. M., Solomon, D. N., Whitlatch, C. J., Hiatt, S. O., Wu, C. Y., Reynolds, C., AuYeung, W.T.M., Kaye, J., & Steele, J. S. (2022). The Remote Assessment and Dynamic Response Program: Development of an In-Home Dementia-Related Care Needs Assessment to Improve Well-Being. *Innovation in Aging*, 6(2), igac006.

- Jones, S.A., Steele, J.S., & Nagel, B.J. (2017). Binge drinking interacts with family history of alcoholism to alter the development of impulsive choice across adolescence. *Addiction, 112*, 1184 – 1192. DOI: 10.1111/add.13823.
- Kothari, B. H., McBeath, B., Sorenson, P., Bank, L., Waid, J., Webb, S. J., & Steele, J. (2017). An intervention to improve sibling relationship quality among youth in foster care: Results of a randomized clinical trial. *Child Abuse & Neglect, 63*, 19 – 29. DOI: 10.1016/j.chiabu.2016.11.010.
- Kahn, K.B., Steele, J.S., McMahon, J.M., & Stewart, G. (2017). How suspect race affects police use of force in an interaction over time. *Law and Human Behavior, 41*(2), 117. DOI: 10.1037/lhb0000218.
- Skinner, E., Pitzer, J., & Steele, J.S. (2016). Can student engagement serve as a motivational resource for academic coping, persistence, and learning during late elementary and early middle school? *Developmental Psychology, 52*(12), 2099 – 2117.
- Cameron, C. E., Grimm, K. J., Steele, J.S., Castro-Shilo, L., & Grissmer, D. (2015). Nonlinear Gompertz Curve Models of Achievement Gaps in Mathematics and Reading. *Journal of Educational Psychology, 107*(3), 789 – 804. DOI: 10.1037/edu0000009.
- Serang, S., Zhang, Z., Helm, J., Steele, J.S., & Grimm, K. J. (2015). Evaluation of a Bayesian Approach to Estimating Nonlinear Mixed-Effects Mixture Models. *Structural Equation Modeling: A Multidisciplinary Journal, 22*(2), 202 – 215.
- Steele, J.S., Ferrer, E., & Nesselroade, J. R. (2014). An idiographic approach to estimating models of dyadic interactions with differential equations. *Psychometrika, 79*(4), 675 – 700. DOI:10.1007/s11336-013-9366-9.
- Newton, E. K., Laible, D., Carlo, G., Steele, J.S., & McGinley, M. (2014). Do sensitive parents foster kind children, or vice versa? Bidirectional influences between children's prosocial behavior and parental sensitivity. *Developmental Psychology, 50*(6), 1808 – 1816. DOI: 10.1037/a0036495.
- Ferrer, E., Gonzales, J. E., & Steele, J.S. (2013). Intra- and Interindividual Variability of Daily Affect in Adult Couples. *GeroPsych: The Journal of Gerontopsychology and Geriatric Psychiatry, 26*(3), 163 – 172.
- Skinner, E., Pitzer, J., & Steele, J. (2013). Coping as part of motivational resilience in school: A multi-dimensional measure of families, allocations, and profiles of academic coping. *Educational and Psychological Measurement, 73*(5), 803 – 835.

- Ferrer, E., Whitaker, K. J., Steele, J.S., Green, C. T., Wendelken, C., & Bunge, S. (2013). White Matter Maturation Supports the Development of Reasoning Ability Through its Influence on Processing Speed. *Developmental Science*, 16(6), 941 – 951, DOI: 10.1111/desc.12088.
- Grimm, K. J., Steele, J.S., Ram, N., & Nesselroade, J. R. (2013). Exploratory forms of latent growth modeling in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal*, 20(4), 568 – 591.
- Ferrer, E., Steele, J.S., & Hsieh, F. (2012). Analyzing dynamics of affective dyadic interactions using patterns of intra- and inter-individual variability. *Multivariate Behavioral Research*, 47, 136 – 171.
- Fulton-Keyzer, J., Mastergeorge, A. M., Steele, J.S., & Hansen, R. L. (2012). Maternal self-efficacy during the early postpartum period: Relationship to early maternal perceptions of the infant. *Infant Mental Health Journal*, 33(4), 329 – 338.
- Steele, J.S., & Ferrer, E. (2011a). Latent differential equation modeling of self-regulatory and co-regulatory affective processes. *Multivariate Behavioral Research*, 46, 956 – 984.
- Steele, J.S., & Ferrer, E. (2011b). Randomness and residuals: A response to Oud & Folmer. *Multivariate Behavioral Research*, 46, 994 – 1003.
- Grimm, K. J., Steele, J.S., Mashburn, A., Burchinal, M., & Pianta, R. C. (2010). Early behavioral associations of achievement trajectories. *Developmental Psychology*, 46(5), 976 – 983.
- Grissmer, D., Grimm, K. J., Aiyer, S. M., Murrah, W. M., & Steele, J.S. (2010). Fine motor skills and early comprehension of the world: Two new school readiness indicators. *Developmental Psychology*, 48, 1008 – 1017.
- Ozonoff, S., Young, G. S., Goldring, S., Greiss-Hess, L., Herrera, A. M., Steele, J., Macari, S., Hepburn, S., & Rogers, S. J. (2008). Gross motor development, movement abnormalities, and early identification of autism. *Journal of Autism and Developmental Disorders*, 38, 644 – 656.

Conference papers

- Thomas, N., Chimehi, B., Lariviere-Chartier, J., Knoefel, F., Beattie, Z., Steele, J., Miller, L., & Wallace, B. (2024). STRENGTHS AND LIMITATIONS OF USING DIFFERENT SENSOR TECHNOLOGIES TO ASSESS CLINICAL OUTCOMES IN DYADIC CARE. *Innovation in Aging*, 8(Supplement 1), 434-434.
- Miller, L., Au-Yeung, W. T., Lyons, K., Steele, J., & Kaye, J. (2024, December). SENSING SPOUSAL CARE DYADS'ACTIVITY PATTERNS: TWO NOVEL DYADIC METRICS FOR CAPTURING TIME USE. In *INNOVATION IN AGING* (Vol. 8, pp. 434-435). GREAT CLARENDON ST, OXFORD OX2 6DP, ENGLAND: OXFORD UNIV PRESS.
- Chimehi, B., Larivière-Chartier, J., Wallace, B., Beattie, Z., Ault, L., Miller, L., Steele, J. & Thomas, N., (2024, June). Sensor Assessment of Time in Bed on Caregiver Burden for Person Living with Cognitive Impairment. In *2024 IEEE International Symposium on Medical Measurements and Applications (MeMeA)* (pp. 1-6). IEEE.
- Miller, L., Steele, J., Hiatt, S., Kaye, J., & Whitlatch, C. (2023). THE READYR PROGRAM FOR WELL-BEING IN DEMENTIA: PILOT STUDY AND SIX-MONTH FOLLOW-UP RESULTS AMONG SPOUSE–PARTNER DYADS. *Innovation in Aging*, 7(Suppl 1), 399.
- Au-Yeung, W.-T.M., Miller, L.M., Lindauer, A., Rodrigues, N., Guerrero, C.L., Marcoe, J., Gothard, S., Steele, J.S., Wu, C.-Y., Dodge, H.H., Beattie, Z.T. & Kaye, J.A. (2023), High dimensional Longitudinal Assessment of Ambient Home Environments and Their Association with Behaviors of People with Cognitive Decline. *Alzheimer's Dement.*, 19, e082052.
doi.org/10.1002/alz.082052
- Au-Yeung, W.T.M., Miller, L.M., Lindauer, A., Rodrigues, N., Guerrero, C.L., Marcoe, J., Gothard, S., Steele, J.S., Wu, C.Y., Dodge, H.H., Beattie, Z.T., & Kaye, J. A. (2023). Clinical Manifestations. *Alzheimer's & dementia: the journal of the Alzheimer's Association*, 19, e071656.
- Hiatt, S., Steele, J., Wu, C. Y., & Miller, L. (2022). THE READYR PROGRAM'S INTERIM FEASIBILITY, ACCEPTABILITY, AND EFFECTS ON VALUES-BASED CARE AND RELATIONSHIP QUALITY. *Innovation in Aging*, 6(Suppl 1), 393.

- Au-Yeung, W. T. M., Miller, L. M., Steele, J. S., Mattek, N., Beattie, Z. T., Silbert, L. C., & Kaye, J. A. (2022). Predicting major decline in older adults: The role of time spent out of home. *Alzheimer's & Dementia*, *18*, e066860.
- Steele, J., Miller, L., Wu, C. Y., Dodge, H., Kaye, J., & Lyons, K. (2021). Distinct Influences of Social Activity and Social Connectedness on Depressive Symptoms in Older Adult Couples. *Innovation in Aging*, *5*(Suppl 1), 313.
- Miller, L. M., Solomon, D. N., Hiatt, S., Wu, C. Y., Harbison, S., & Steele, J. S. (2021). The READyR intervention: Focus group feedback from case managers on the initial development of a remote assessment and dynamic response intervention for dementia-related care needs. *Alzheimer's & Dementia*, *17*, e054984.
- Miller, L., Reynolds, C., Whitlatch, C., Steele, J., & Kaye, J. (2020). Development of a Remote Assessment and Dynamic Response Intervention for Dementia-Related Care Needs. *Innovation in Aging*, *4*(Suppl 1), 626. DOI: 10.1093/geroni/igaa057.2135

Non-Refereed Publications or Other Creative Achievements

Book reviews

- Steele, J.S. (2013). Invited review of the book Longitudinal Data Analysis for the Behavioral Sciences Using R, by Jeffrey D. Long. *Structural Equation Modeling: A Multidisciplinary Journal*, *20*(1), 175 – 180.

Software & Technical Works

- Steele, J.S. (2009). A Perl based parser for Mplus syntax. Code submitted to the OpenMx forums for automated translation of Mplus syntax into OpenMx syntax. URL: <http://openmx.psyc.virginia.edu/thread/236>
- Steele, J.S. (2005). The Uniqueness of hashes. Tutorial submitted to Perlmonks.org. URL: http://www.perlmonks.org/?node_id=494836

Presentations at Professional Meetings

Invited presentations

- Steele, J.S. (Feb, 2021). State of Interest Transition Analysis, Investigating Micro-processes of Change. Invited presentation to the Indigenous Health Seminar, University of North Dakota, Grand Forks, ND.

- Steele, J.S., Sbarra, D., & Ferrer, E. (Mar, 2020). The Temporal Dynamics of Emotion: Longitudinal Methods for a Circumplex Model of Affect. Invited presentation to the ORCATECH Council, Portland, OR.
- Steele, J.S., Sbarra, D., & Ferrer, E. (Sep, 2019). Geometric Measures of Bivariate Change: A New Look at Relationship Dynamics. Invited presentation for the Department of Psychology, Arizona State University, Phoenix, AZ.
- Steele, J.S. (2019, Feb). Interdisciplinary methods for studying dyadic dynamics. Invited presentation for the Department of Psychological and Behavioral Science, London School of Economics and Political Science (LSE), London, UK.
- Steele, J.S., & Ferrer, E. (2019, Feb). Dynamical systems analysis of dyadic interactions using differential equations. Invited presentation for the Society for Personality and Social Psychology annual convention, Portland, OR.
- Steele, J.S., & Ferrer, E. (2016, Sept). A dynamic systems approach to relationship affect over time: An application of the Exact Discrete Model. Invited presentation for the 9th International Conference on Social Science Methodology, (RC33), University of Leicester, Leicester, UK.
- Steele, J.S., Ferrer, E., & Sbarra, D.A. (2015, Apr). Geometric extensions of behavioral analysis for the study of change. Invited research talk presented to the Department of Psychology, UC Davis, CA.
- Steele, J.S., Ferrer, E., & Sbarra, D.A. (2014, Nov). Developing behavioral filters: Some extensions of state-space grids for dyadic data analysis. Invited presentation for the Workshop on Computationally Intensive Modeling of Social Interactions, University of Arizona, Tuscon, AZ.
- Steele, J.S., Ferrer, E., & Nesselroade, J.R. (2014, Sept). The use of continuous time models in measuring change in romantic relationships. Invited symposium paper for the Developmental Methodology Special Topics Meeting SRCD, San Diego, CA.
- Steele, J.S. & Ferrer, E. (2014, Sept). Accounting for random change: Fitting linear stochastic differential equations. Invited symposium paper for the Developmental Methodology Special Topics Meeting SRCD, San Diego, CA.
- Steele, J.S. (2014, Apr). Time for a change: Explorations, trials, and tribulations of continuous time modeling. Invited lecture, the Center for Research Methods and Data Analysis, University of Kansas, Lawrence, KS.

- Steele, J.S. (2014, Apr). Looking to the horizon: Thoughts on the role of Big Data in Psychology. Invited lecture, Department of Psychology, USC.
- Steele, J.S. (2014, Jan). Interdisciplinary Methods for Studying Coupled Systems. Invited lecture, Department of Psychology, University of Virginia.
- Steele, J.S. (2013, Oct). Some modern approaches to dyadic data analysis. Invited lecture, the Center for Spoken Language Understanding, OHSU, Portland, OR.
- Steele, J.S. (2011, Feb). From shapes to systems: Nonlinear modeling of longitudinal change. Invited research talk presented to the Graduate School of Education, UC, Riverside.
- Steele, J.S. (2011, Feb). From shapes to systems: Nonlinear modeling of longitudinal change. Invited research talk, SSHA, UC, Merced.
- Steele, J.S. (2011, Jan). Dynamic and exploratory approaches to modeling dyadic time series. Invited research talk presented to the Department of Psychology, Portland State University.
- Steele, J.S. (2010, Dec). Modeling at the individual level: Fitting differential equations to empirical data. Invited research talk presented to the Unified Studies of Cognition Laboratory, USC.
- Steele, J.S. (2010, Nov). Dynamic and exploratory approaches to modeling romantic relationships. Invited research talk presented to the Department of Psychology, California State University, Fullerton.

Lecture & Paper presentations

- Steele, J. S. (April, 2024). An Indigenous food for Indigenous people: An update on the health effects of traditional Chokeberry. Indigenous Trauma and Resilience Research Center COBRE Symposium 2024. UND, Grand Forks, ND.
- Steele, J. S. (April, 2023). The Health Effects of Traditional Indigenous Chokeberry. Indigenous Trauma and Resilience Research Center COBRE Symposium 2023. UND. Grand Forks, ND.

- Dale C. Brunelle, Kate J. Larson, Amy Bundy, James N. Roemmich, Joel Steele, Donald Warne, Nicole Redvers. (Sept, 2023). Chokeberry reduces inflammation in the buffy coat of American Indians and in isolated preadipocyte cells. ADVANCING HEALTH EQUITY THROUGH CULTURE-CENTERED DIETARY INTERVENTIONS TO ADDRESS CHRONIC DISEASES VIRTUAL WORKSHOP, NIH.
- Au-Yeung, W. T. M., Miller, L. M., Steele, J. S., Mattek, N., Beattie, Z. T., Silbert, L. C., & Kaye, J. A. (2022, July). Predicting Major Decline in Older Adults: The Role of Time Spent Out of Home. In *Alzheimer's Association International Conference*. ALZ.
- Steele, J.S., Miller, L.M., Wu, C-Y., Kaye, J., Dodge, H.H., & Lyons, K.S. (2021, Nov). Distinct influences of social activity and social connectedness on depressive symptoms in older adult couples. Paper presentation at The Gerontological Society of America (GSA) 2021 Annual Scientific Meeting, Phoenix, Arizona.
- Steele, J.S., Sbarra, D.A., & Ferrer, E. (2017, May). Affective Red Zones: An examination of bivariate change in context. Paper presented at the Modern Modeling Methods (M3) Conference: 2017. University of Connecticut, Neag School of Education, Storrs, CT.
- Kahn, K, Steele, J.S., & McMahon, J. (2017, Jan). How Suspect Race Affects Police Use of Force. Paper presentation at the Social Psychology, Policy and Law Preconference, San Antonio TX.
- Steele, J.S. (2016, Apr). Modeling ODEs with events. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S., & Thompson, M. (2016, Feb). Structuring residuals for longitudinal HLM. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S. (2016, Jan). Intro to optimization with the optim package in R. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S. (2015, Oct). SQL in R. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S. (2015, Feb). WinBUGS example of longitudinal modeling. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.

- Steele, J.S. (2014, Mar). Sweave and LaTeX for creating dynamic documents. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S. (2013, Dec). Longitudinal modeling in R using mixed-effects models and SEM. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S. (2013, Nov). A brief overview of the R statistical software. Presentation for the Stats Lunch Brown-Bag Series and the QIG, Portland State University.
- Steele, J.S., Ferrer, E., & Sbarra, D. A. (2013, Oct). Romantic Red-zones: A geometric view of relationship affect over time. Paper, Department of Psychology, DeSE Meeting, Portland State University.
- Cameron, C., Grimm, K. J., Steele, J.S., & Castro-Shilo, L. (2013, Sept). Nonlinear Gompertz Curve Models of Achievement Gaps. Paper, The Society for Research on Educational Effectiveness, presented at Fall Conference, Washington, D.C.
- Ferrer, E., & Steele, J.S. (2011, Nov). Using Differential Equations to Examine Theoretical Models for Dyadic Interactions. Paper, The Pennsylvania State University, presented at Conference on Inductive Developmental Systems Theory, College Park, PA.
- Ferrer, E., & Steele, J.S. (2010, Jun). Modeling Affective Dynamics in Dyadic Interactions Using Differential Equation Models. Paper, The Center for Integrated Latent Variable Research and The Society for Multivariate Experimental Psychology, presented at Advances in Longitudinal Methods in Social and Behavioral Science Conference, University of Maryland.
- Fulton, J. M., Mastergeorge, A. M., Steele, J.S., & Hansen, R. L. (2010, Mar). Maternal self-efficacy during the early postpartum period: Relationship to early maternal perceptions of the infant. Poster session, ISIS, presented at International Conference on Infant Studies, Baltimore MD.
- Sbarra, D., Steele, J.S., & Ferrer, E. (2009, Feb). Traveling in the Red Zone: New Approaches to Interpersonal Affective Dynamics. Paper, Society for Personality and Social Psychology, presented at Society for Personality and Social Psychology, Tampa, FL.

Ferrer, E., Steele, J.S., & Hsieh, F. (2008, Sept). Analyzing Dynamics of Affective Dyadic Interactions Using Patterns of Intra- and Inter-Individual Variability. Paper, Society for Multivariate Experimental Psychology, presented at Annual Meeting of the Society for Multivariate Experimental Psychology, Montreal Canada.

Honors, Grants, & Fellowships

Active Grants

5P20GM139759-05, Title: “Indigenous Trauma and Resilience Research Center”, Agency: NIGMS – National Institute of General Medical Sciences. Role: PI

P30AG066518-06, subproject: 5230, Title: “Oregon Alzheimer’s Disease Research Center”, Agency: NIA – National Institute on Aging. L. Silbert MD MCR (PI), K. Duff PhD ABPP-CN (mPI) Role: Data Core Lead

R01AG080644-03, Title: “RSELVES: Remote Sensing of (older adult partners’) Engagement in Life and Variability in Everyday Support.”, Agency: NIA – National Institute on Aging. L Miller PhD (PI), Role: mPI

R01CA288301, Title: “A Mobile Web App Intervention to Promote Cervical Cancer Screening among Indigenous Women.”, Agency: NCI – National Cancer Institute. S. Roh PhD (PI), Role: Co-Investigator

5S06GM142131-02, Title: “American Indian Higher Education Consortium (AIHEC) Building Indigenous Research Capacity in Health (BIRCH) project”, Agency: NIH – National Institutes of Health, American Indian Higher Education Consortium. M Nadeau PhD (PI), Role: Faculty Enhancement Senior Personnel

Title: “Developing a digital signature of care-related activities and burden.”, Agency: ARCOM 3.0, NIA – National Institute on Aging. N Thomas MD (PI), Role: Consultant

Completed

P20GM139759-02, subproject: 5896, Title: “Health Effects of Traditional Indigenous Chokeberry” Agency: NIGMS – National Institutes of General Medical Sciences, Indigenous Trauma & Resilience Research Center, Center of Biomedical Research Excellence (COBRE). J Geiger PhD (PI), Role: Research Project Leader.

P30AG024978, Title: “READYR (*RE*mote *A*ssessment and *D*ynamic *R*esponse).”, Agency: NIA – National Institute on Aging, ORCASTRAIT (Oregon Roybal Center for Care Support Translational Research Advantaged by Integrating Technology). Collaborator(s): L. Miller PhD (Co-Principal Investigator). Role: PI.

Title: “Follow-up of Siblings in Foster Care RCT.”, Agency: ICASS – Interdisciplinary Center for Applied Social Science Initiative at Portland State University. L. Bank, PhD (Co-Instigator/Mentor). Role: PI.

Submitted / Pending

Title: “Validating a Tribally Informed Risk and Protective Factor Survey for American Indian Youth.”, Agency: NIH – National Institutes of Health., M.A. Nadeau PhD (PI) Role: Consultant

Title: “American Indian and Alaska Native Behavioral Health Center of Excellence.”, Agency: Substance Abuse and Medical Health Services Administration (SAMSHA), M.A. Nadeau PhD (PI) Role: Consultant

Honors & Awards

- 20-22 Research Education Scholar, NIA-funded Oregon Alzheimer’s Disease Research Center
- Outstanding Graduate Student Teaching Award, UC Davis. (Apr 27, 2011)
- Psychology Department Block Grant Graduate Fellowship, UC Davis. (2007)
- Higher Education Grant, Bureau of Indian Affairs. (1994)
- Leadership Training, California Conservation Corps, San Luis Obispo. (1994)

Teaching, Mentoring & Curricular Achievements

Workshop Teaching

Instructor, *Introduction to Stats software: R and Rstudio*, AIHEC-BIRCH Tribal College Student Enhancement Summer Session, University of North Dakota, (August 13th, 2024; June 24th 2025)

Instructor, *Finding relations among data: Visualizations and Computations*, AIHEC-BIRCH Tribal College Student Enhancement Summer Session, University of North Dakota, (August 13th, 2024; June 25th 2025)

Instructor, *Basics of Factor Analysis*, AIHEC-BIRCH Tribal College Student Enhancement Summer Session, University of North Dakota, (August 13th, 2024; June 25th 2025)

Instructor, *R Baby Steps*, Graduate School Workshop, Portland State University, (Nov 7, 2020)

Instructor, *Introduction to Bayesian Modeling*, Western Psychological Association, Portland OR, (Apr 28, 2018)

Instructor, *Advanced R Programming for Statistical Analysis and Data Management*, Summer Quantitative Methods Series, Portland State University, (June 19, 2018)

Instructional Assistant, *Longitudinal Structural Equation Modeling*, APA Advanced Training Institute, Longitudinal Research Institute, Davis, California, (May, 2009).

Remote Instruction (University of North Dakota)

PH 731, Applied Biostatistics

PH 762, Quantitative Research Methods

Classroom Teaching (Portland State University)

Undergraduate Courses

PSY 320, Social Science Research Methods II (*Statistical Analysis of Psych Data*)

PSY 321, Research Methods in Psychology

PSY 399, Skills for Psychological Statistics Seminar (co-created)

Graduate Courses

PSY 510/610, Introduction to Statistical Computing with R

PSY 510/610, Applied Longitudinal Analysis

PSY 510/610, HLM for Longitudinal Data Analysis
PSY 510/610, SEM for Longitudinal Data Analysis
PSY 521/621, Univariate Quantitative Methods
PSY 522/622, Multiple Regression and Multivariate Quantitative Methods
PSY 524/624, Research Design in Applied Psychology
PSY 515/615, Advanced Applied Developmental Psychology

Scholarly Mentoring

Current Students (University of North Dakota)

- Ke'alahilani Antonio, Indigenous Health
- Laura Sawney, Indigenous Health
- Cherokee Durant, Indigenous Health
- Josh Barnett, Indigenous Health

Former Graduate Students (Portland State University)

- Paul Sorenson (co-advisee), School of Social Work
- Timothy Carsey, PhD Psychology
- Lauren Park, Psychology, PhD Research Scientist at SAP
- Rachel Smith, Psychology, Head of data science Delta Airlines
- Hyuny Clark-Shim (co-advisee), MA Psychology, PhD Social Work
- Katherine Lee (co-advisee), Diversity researcher at Amazon
- James DeLaney (co-advisee), Psychology

Undergraduate

- EXITO career mentor, Jamie McCoy, PSU (November 2017 – 2020)

Doctoral Dissertation Committee Member – 27 total students

(Psychology unless otherwise noted)

Completed – 17 students

- Amy Cordier, PhD, (Mar 10, 2023)
- Paul Sorenson, PhD (July 8, 2022), Social Work
- Tim Carsey, PhD. (Jun 8, 2022)
- Judith Zatkan, PhD. (Apr 30, 2021)
- Lauren Park, PhD. (Feb 9, 2021)
- Miranda Sitney, PhD. (Oct 23, 2020)
- Jaiya Choles, PhD. (May 21, 2020)

- Nicolette Rickert, PhD. (Nov 27, 2019)
- Dan Larson, PhD. (May 9, 2019), Geography
- Emily Saxton, PhD. (Apr 1, 2019)
- Kelly Stewart, PhD. (Mar 21, 2019)
- Sylvia Kidder, PhD. (Jul 2, 2018)
- Justin Vollet, PhD. (June 1, 2017)
- Adam Murry, PhD. (Jul 6, 2015)
- David Caughlin, PhD. (Apr 28, 2015)
- Jennifer Pitzer, PhD. (Mar 10, 2015)
- Una Chi, PhD. (Jun 11, 2013)

Proposed – 2 students

- Price Johnson, ABD. (Dec 6, 2016)
- David Lawrence, ABD. (Dec 9, 2016), System Science

OGS representative – 7 students

- Anna Marie Bergman, PhD. (Apr 30, 2020), Math Education
- Cory Hensen, PhD. (Oct 18, 2019), Chemistry
- Peter Geissert, (*forthcoming*), System Science
- Stephen Strand, PhD. (May 4, 2016), Math Education
- Barry S. Oken, PhD, MD, MS. (Feb 19, 2016), Systems Science
- Phillip Pearson, PhD. (May 13, 2014), Educational Leadership and Policy

International / External reviewer for Doctoral Dissertation Defense – 1 student

- Rebecca Bendayan, PhD. (Sept 10, 2013), Area of Methodology of the Behavioral Sciences, Universidad de Málaga, Málaga Spain

Master's Thesis Committee Member – 16 total students

(Psychology unless otherwise noted)

Completed – 13 students

- Ae Leah Granger, M.A. (June 5, 2020)
- Miranda Sitney, M.A. (Apr 9, 2018)
- Lee Cyr, M.A. (Mar 15, 2018)
- Jaiya Choles, M.A. (Mar 6, 2018)
- Judith Zatkin, M.A. (June, 13, 2017)
- Elizabeth Tremaine, M.A. (Mar 21, 2017)
- Gilbert Brady, M.A. (Feb 21, 2017)

- Aurelia Alston, M.A. (Dec 2, 2016)
- Nicolette Rickert, MA. (Jun 7, 2016)
- Amy Shearer, MA. (May 31, 2016)
- Heather Brule, MA. (Aug 11, 2014)
- Hyuny Clark-Shim, MA. (May 12, 2014)
- Amber Hayes, MA. (May 28, 2013)

Proposed – 2 students

- Rachel Terry (Dec 8, 2016)
- Maia Paluska. (Mar 6, 2014)

OGS representative – 1 student

- Arianna Morgan, MA. (May 5, 2014), Applied Linguistics

Comprehensive Exams

University of North Dakota – 12 total students

- Anna C. Kihlstrom (June 2025)
- Angela Carter (June 2024)
- Darcy Merchant (June 2024)
- Kamellia Kellywood (June 2024)
- Keona Manuelito (June 2024)
- Kimberly Harn (June 2024)
- Mikalen Belgarde (June 2024)
- Michelle Gutiérrez (June 2024)
- Tara Stiller (June 2024)
- Paula Aubrey (June 2023)
- Lindsey Hammer (June 2023)
- Jake Taylor (June 2023)

Portland State University – 19 total students

Minor Exam Chair – 14 students

- Luke Mahoney (Feb 2021)
- Lauren Park (Nov 2019)
- Tim Carsey (Nov 2019)
- Jaiya Choles (Nov 2018)
- Jaboa Lake (Nov 2017)
- Nicolette Rickert (Oct 2017)
- Elizabeth Tremaine (May 2017)

- Jessica Robbeloth (May 2017)
- Shawn Mehess (May 2017)
- Emily Saxton (Nov 2016)
- Katherine Lee (Oct 2016)
- Amy Cordier (May 2016)
- Jean McMahon (Nov 2015)
- Sylvia Kidder (Nov 2015)

Minor Exam Committee Member – 5 students

- Alicia Starkey (May 2017)
- Hayley Tews (May 2014)
- Sarah Arpin (May 2013)
- Adam Murry (May 2013)
- Erin Stack (May 2013)

Directed Student Learning / Reading & Conference – 25 total students

Undergraduate

Undergraduate Introduction to R Programming – 4 students

Graduate

Applied Longitudinal Data Analysis – 1 student

Data Management with SQL & Python – 6 students

Package Development in R – 2 students

Introduction to Data Science for Psychology – 4 students

Bayesian HLM/MLM in R – 3 students

Hierarchical Linear Modeling – 2 students

Dyadic Data Analysis – 2 students

R Quantitative Software for Statistical Analysis – 1 student

Community Outreach

Native Faculty Guest Speaker, American Indian Urban Teachers Program & Portland State University, Portland, Oregon. (May 23, 2013)

Academic Consulting

Siblings in Foster Care project through the Region Research Institute, Portland Oregon & Oregon State University Cascades, Bend Oregon.
(Jun 2012 – Present)

Neurorelational Framework Global Communities (NRFGC), Pasadena California. (Aug 2018 – 2019)
Children's Learning Research Collaborative, the Ohio State University. (Sept 2012)
ADHD Research Study, Oregon Health Science University, Portland Oregon. (Jul 2012 – Feb 2013)
Design 2 Learn, Child Development and Rehabilitation Center, Oregon Health Science University, Portland Oregon. (Feb 2012 - Jan 2013)
Children's Thinking Lab, Department of Human Development, UC Davis, Davis CA. (May 2009 – Aug 2009)

Scholarly Works in Progress

In preparation

Steele, J.S. Conceptualization and Specification of the Latent Basis Model Using the Mixed Effects Framework.
Steele, J.S., Sbarra, D.A., & Ferrer, E. (*preparing for resubmission*) State of Interest Transition Analysis: A Geometric Approach to Understanding Micro-processes in Intensive Longitudinal Data.

Governance and Departmental Service

Governance Activities for the University, School or College, and Department University of North Dakota

- By-laws Committee, Member (2025)
- Faculty Search Committee, Member (2022), Chair (2023)
- MPH Director Search Committee, Member (2025)

Portland State University

- Faculty Search Committee, Dept of Mathematics and Statistics (2019)
- Institutional Review Board (Sept 2018 – Sept 2022)
- Native American Affinity Group / Employee Resource group (Sept 2017 – Sept 2022)
- Early Childhood Council Steering Group (May 2016 – Feb 2018)

Psychology Department

- Co-founder, Applied Quantitative Psychology Area (2018)
- Faculty Search Committee Member – IO Area (2019)
- Faculty Search Committee Member – Developmental Area (2016)

- Co-founder, Stats Lunch Brown Bag Series (Nov 2013 – March 2020)
- Committee Member, Graduate Committee
(Sept 2011 – Jun 2012; Sept 2014 – Sept 2022)
- Committee Member, Diversity Committee
(Sept 2014 – Sept 2015; Sept 2016 – Sept 2022)
- Committee Member, Undergraduate Pathways Committee
(Sept 2013 – Sept 2014; Sept 2018 – Sept 2022)
- Committee Member, Psychology Department Digital Curation Project
(Sept 2012 – Sept 2013)

Professional Service

Journals

Ad Hoc Reviewer

American Psychologist, Annals of Nutrition and Metabolism, Anxiety, Stress, & Coping, Assessment, Behavior Research Methods, Biometrical Journal, Child Development, Cognitive Psychology, Computers in Human Behavior, Developmental Psychology, Emotion, European Journal of Social Psychology, Frontiers in Psychiatry, Frontiers in Psychology, Frontiers in Public Health, International Journal of Psychophysiology, Journal of Consulting and Clinical Psychology, Journal of Counseling Psychology, Journal of Experimental Psychology: General, Multivariate Behavioral Research, Psychological Methods, Science Medicine, Sociological Methodology, Sociological Perspectives, Structural Equation Modeling.

Books

American Psychological Association, Sage Publications Inc., John Wiley and Sons, Inc., Taylor and Francis Group, Oxford Research Encyclopedias.

Grants

Study Section Member

National Institute on Aging Special Emphasis Panel, National Institute on Aging – NIA (2023); National Institutes of Health Analytics and Statistics for Population Research panel B – NIH ASPB (2024)

Ad Hoc Review

the FWO Administration, National Science Foundation, Czech Science Foundation.

Conferences

Society for Research in Child Development, APA Division 5.

Professional Development Activities

Workshops

- Non-linear methods for Psychological Science, APA Advanced Training Institute, University of Cincinnati.
- Longitudinal Structural Equation Modeling, Summer Quantitative Methods Series at Portland State University.
- Latent Class and Latent Transition Analysis, Summer Quantitative Methods Series, Portland State University.
- Modeling Dynamical Systems, UC Davis.