# ETHAN M. MCCORMICK



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 McCormick ◊ ♠
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 OSF

# December, 2023

#### **POSITIONS**

Assistant Professor, Methodology and Statistics

2022 - present

Institute of Psychology

Leiden University, Leiden, NL

Postdoctoral Fellow

2021 - 2022

Lifespan Cognitive Dynamics Lab

Donders Institute for Brain, Cognition, and Behaviour

Radboud University, Nijmegen, NL

Consultant 2020 - present

CenterStat

Courses: Multilevel Modeling, Structural Equation Modeling, Longitudinal Structural Equation Modeling, Network Analysis, Mixture Modeling, Measurement Modeling,

Machine Learning, Causal Inference

Postdoctoral Fellow 2020 - 2021

Cole Neurocognition Laboratory

Center for Molecular and Behavioral Neuroscience

Rutgers University, Newark, USA

#### **EDUCATION**

### University of North Carolina at Chapel Hill

2020

Ph.D. in Developmental Psychology, Quantitative Psychology Concentration

Supervisor: Dr. Eva Telzer

Dissertation Title: Neural Network Plasticity in Response to Experience: Contributions

of Learning and Development

## University of Illinois at Urbana-Champaign

2016

M.A. in Developmental Psychology

Supervisor: Dr. Eva Telzer

#### University of Arkansas

2013

B.S. (Honors) in Biochemistry and Biology

#### GRANTS AND AWARDS

#### **2023-1510-00** (McCormick, PI)

2024 - 2026

Jacobs Foundation Research Fellowship

Modeling Complex Growth in Underlying Math Ability

Role: Principle Investigator Total Costs: 165,000 CHF

The goal of this fellowship is to model complex features of change (e.g., practice effects, growth) in mathematics ability during childhood by synthesizing timeseries and longitudinal growth models.

**INV-009195** (Lloyd-Fox, PI)

2023 - 2025

Bill & Melinda Gates Foundation

BRIGHT IMPACT: Implementing Modelling Pathways for Accelerating neuro Cognitive (global) Toolkits.

Role: Co-Investigator Total Costs: \$747,350

This project seeks to identify and validate a "fingerprint" combination of brain function markers, that predict exposure phenotypes (i.e. undernutrition/caregiving context) in a low-income setting, such as rural Gambia.

# 202307720051 (Liu, Fellow)

2023 - 2027

China Scholarship Council (CSC) - Leiden University Scholarship

Stepwise estimation approaches of growth mixture models.

Role: Co-promotor, Daily supervisor

Supervision Team: Mark De Rooij, Promotor; Zsuzsa Bakk, Co-Promotor

The aim of this Ph.D. is to develop novel stepwise estimation methods for growth mixture models.

# **R25 MH125545-01** (Mills, PI)

2020

National Institute of Mental Health

Modeling Developmental Change in the ABCD Study: Longitudinal Analyses for Clinical Outcomes.

Role: Co-Investigator Total Costs: \$121,800

This project funded the creation of a summer workshop on longitudinal modeling (https://abcdworkshop.github.io/).

#### R01 DA051127 (Telzer, Lindquist, & Prinstein, Co-PIs)

2020 - 2024

National Institute on Drug Abuse

Neurobiological susceptibility to peer influence and drug use in adolescence.

Role: Graduate Student Consultant

Total Costs: \$3,395,273

The goal of this project is to examine the neurobiological markers of social influence susceptibility.

Stanford PRISM Fellow	2019
ABCD Summer Workshop Travel Award (\$500)	2019
Dashiell Departmental Travel Award, UNC (\$1000)	2018
Dashiell Dissertation Startup Award, UNC (\$1000)	2017 - 2018
Ernest C. Davenport Award for Outstanding Research by a	
Student Who Enhances Diversity, UNC (\$200)	2017 - 2018
Social Affective Neuroscience Society Travel Grant (\$250)	2015
Rhymer's Fellowship, UIUC	2014 - 2015

## **SOFTWARE**

# leni (R-package) 🗘

creator

Linear Estimation with Nonlinear Inference

## gimme (R-package) 🔾 🗘

contributor

Group Iterative Multiple Model Estimation

## PREPRINTS (TITLES LINK TO OPEN-ACCESS PDFS)

- † Denotes mentored student or trainee
- **4.** McCormick, E.M. (preprint) Deriving models of change with interpretable parameters: linear estimation with nonlinear inference. https://doi.org/10.31234/osf.io/r4vxb
- **3.** McCormick, E.M., & Bauer, D.J. (*preprint*). How should we model the effect of "change" or should we?. https://doi.org/10.31234/osf.io/pbhmq

- 2. †Parsons, S., & McCormick, E.M. (preprint). Two time points poorly capture trajectories of change: A warning for longitudinal neuroscience. https://doi.org/10.31234/osf.io/96ph3
- 1. McCormick, E.M., Borgeest, G.S., & Kievit, R.A. (*preprint*). Interrupted mediation: A cautionary note on using derived metrics as intervening variables in path models. https://doi.org/10.31234/osf.io/48xj5

# PUBLICATIONS (TITLES LINK TO OPEN-ACCESS PDFS)

- **36.** McCormick, E.M., Curran, P.J., & Hancock, G.R. (*in press*). Latent Growth Factors as Predictors of Distal Outcomes. *Psychological Methods*. Accepted November 2023. https://doi.org/10.1037/met0000642 | Preprint
- **35.** †Michel L.C., **McCormick, E.M.**, & Kievit, R.A. (*in press*). Grey and white matter metrics demonstrate distinct and complementary prediction of differences in cognitive performance in children: Findings from ABCD (N= 11 876). *Journal of Neuroscience*. Accepted November 2023. Rx Preprint
- **34.** Duell, N., Perino, M.T., **McCormick, E.M.**, & Telzer, E.H. (2023) Differential processing of risk and reward in delinquent and non-delinquent youth. *Social Cognitive and Affective Neuroscience*, 18(1), 1-9. https://doi.org/10.1093/scan/nsad040
- **33.** McCormick, E.M., Byrne, M.L., Flournoy, J.C., Mills, K.L., & Pfeifer, J.H. (2023). The Hitch-hiker's Guide to Longitudinal Models: A Primer on Model Selection for Repeated-Measures Methods. *Developmental Cognitive Neuroscience*, 63, 101281.
- https://doi.org/10.1016/j.dcn.2023.101281 | 🖫 Preprint | Codebook Companion | 🖸
- **32.** McCormick, E.M., Cam-CAN, & Kievit, R.A. (2023). Poorer white matter microstructure predicts slower and more variable reaction time performance: evidence for a neural noise hypothesis in a large lifespan cohort. *Journal of Neuroscience*, 43(19), 3557-3566. https://doi.org/10.1523/JNEUROSCI.1042-22.2023 | Preprint
- **31.** †Jorgensen, N.A., Muscatell, K.A., **McCormick, E.M.**, Prinstein, M.J., Lindquist, K.A., & Telzer, E.H. (2023). Neighborhood Disadvantage, Race, and Neural Sensitivity to Social Threat and Reward among Adolescents. *Social Cognitive and Affective Neuroscience*, 18(1), 1-12. https://doi.org/10.1093/scan/nsac053
- **30.** †Metherell, T.E., Ghai, S., **McCormick, E.M.**, Ford T.J., & Orben, A. (2022). Digital exclusion predicts worse mental health among adolescents during COVID-19. *Scientific Reports*, *12*, 19088. https://doi.org/10.1038/s41598-022-23899-y | Rx Preprint
- 29. †Do, K.T, McCormick, E.M., Prinstein, M.J., Lindquist, K.A., & Telzer, E.H. (2022). Intrinsic connectivity within the affective salience network moderates adolescent susceptibility to negative and positive peer norms. *Scientific Reports*, 12, 17463. https://doi.org/10.1038/s41598-022-17780-1
- 28. McCormick, E.M., Arnemann, K.L., Ito, T., Hanson, S.J., & Cole, M.W. (2022). Latent functional connectivity underlying multiple brain states. Network Neuroscience, 6(2), 570-590. https://doi.org/10.1162/netn\_a\_00234 |  $R_X$  Preprint
- 27. Kievit, R.A, McCormick, E.M.\*, Fuhrmann, D.\*, Deserno, M.\*, & Orben, A\*. (2022). Using large, publically available datasets to study adolescent development: Opportunities and challenges. Current Opinion in Psychology, 44, 303-308. \*denotes equal contribution https://doi.org/10.1016/j.copsyc.2021.10.003 | Preprint
- **26.** McCormick, E.M. (2021). Multi-Level Multi-Growth Models: New opportunities for addressing developmental theory using advanced longitudinal designs with planned missingness. *Developmental Cognitive Neuroscience*, *51*, 101001.
- https://doi.org/10.1016/j.dcn.2021.101001 | Rx Preprint

- **25.** McCormick, E.M., Peters, S., Crone, E.A., & Telzer, E.H. (2021). Longitudinal Network Reorganization Across Learning and Development. *NeuroImage*, 229, 117784. https://doi.org/10.1016/j.neuroimage.2021.117784 | Rx Preprint
- **24.** Duell, N., van Hoorn, J., **McCormick, E.M.**, Prinstein, M.J., & Telzer, E.H. (2021). Hormonal and neural correlates of prosocial conformity in adolescents. *Developmental Cognitive Neuroscience*, 48, 100936. https://doi.org/10.1016/j.dcn.2021.100936
- 23. Kwon, S-J., Do, K.T., McCormick, E.M., & Telzer, E.H. (2020). Neural correlates of conflicting social influence on adolescent risk-taking. *Journal of Research on Adolescence*, 31(1), 139-152. https://doi.org/10.1111/jora.12587
- 22. Do, K.T., McCormick, E.M., & Telzer, E.H. (2020). Neural sensitivity to conflicting attitudes supports greater conformity toward positive over negative influence in early adolescence. *Developmental Cognitive Neuroscience*, 45, 100837. https://doi.org/10.1016/j.dcn.2020.100837
- 21. Van Hoorn, J., McCormick, E.M., Perino, M.T., Rogers, C.R., & Telzer, E.H. (2020). Differential behavioral and neural profiles in high-risk youth with conduct problems during risky decision-making. *Journal of Research on Adolescence*, 30(3), 599-615. https://doi.org/10.1111/jora.12546
- **20.** Chen, X., **McCormick, E.M.**, Ravindran, N., Telzer, E.H., & McElwain, N.L. (2020). Maternal emotion socialization in early childhood predicts adolescents' amygdala-vmPFC functional connectivity to emotion faces. *Developmental Psychology*, 56(3), 503-515. http://dx.doi.org/10.1037/dev0000852
- 19. Perino, M.T., Guassi Moreira, J., McCormick, E.M., & Telzer, E.H. (2019). Apples to apples? Neural correlates of emotion regulation differences between high and low risk adolescents. *Social Cognitive and Affective Neuroscience*, 14(8), 827-836. https://psycnet.apa.org/doi/10.1093/scan/nsz063
- 18. Kwon, S-J., Ivory, S.L., McCormick, E.M., & Telzer, E.H. (2019). Behavioral and neural dysregulation to social reward and links to internalizing symptoms in adolescents. *Frontiers in Behavioral Neuroscience*, 13, 158. https://doi.org/10.3389/fnbeh.2019.00158
- 17. McCormick, E.M., McElwain, N.L., & Telzer, E.H. (2019). Alterations in adolescent dopaminer-gic systems as a function of early mother-toddler attachment: a prospective longitudinal examination. *International Journal of Developmental Neuroscience*, 78, 122-129. https://doi.org/10.1016/j.ijdevneu. 2019.06.010
- **16.** Do, K.T, **McCormick, E.M.**, & Telzer, E.H. (2019). The neural development of prosocial behavior from childhood to adolescence. *Social Cognitive and Affective Neuroscience*, 14(2), 129-139. https://doi.org/10.1093/scan/nsy117
- **15.** McCormick, E.M., Gates, K.M., & Telzer, E.H. (2019). Model-based network discovery of developmental and performance-related differences during risky decision-making. *NeuroImage*, 188, 456-464. https://doi.org/10.1016/j.neuroimage.2018.12.042
- **14.** McCormick, E.M., & Telzer, E.H. (2018b). Contributions of default mode network stability and deactivation to adolescent task engagement. *Scientific Reports*, 8(1), 18049. https://doi.org/10.1038/s41598-018-36269-4
- 13. Van Hoorn, J., McCormick, E.M., Rogers, C.R., Ivory, S.L., & Telzer, E.H. (2018). Differential effects of parent and peer presence on neural correlates of risk taking in adolescence. *Social Cognitive and Affective Neuroscience*, 13(9), 945-955. https://doi.org/10.1093/scan/nsy071
- 12. McCormick, E.M., Van Hoorn, J., Cohen, J.R., & Telzer, E.H. (2018). Functional connectivity in the social brain across childhood and adolescence. *Social Cognitive and Affective Neuroscience*, 13(8), 819-830. https://doi.org/10.1093/scan/nsy064
- 11. Rogers, C.R., McCormick, E.M., Van Hoorn, J., & Telzer, E.H. (2018). Neural correlates of sibling closeness and association with externalizing behavior in adolescence. *Social Cognitive and*

- 10. Muscatell, K.A., McCormick, E.M., & Telzer, E.H. (2018). Subjective social status and neural processing of race in Mexican American adolescents. *Development and Psychopathology*, 30(5), 1837-1848. https://doi.org/10.1017/s0954579418000949
- **9.** Van Hoorn, J., **McCormick, E.M.**, & Telzer, E.H. (2018). Moderate social sensitivity in a risky context supports adaptive decision-making in adolescence: Evidence from brain and behavior. *Social Cognitive and Affective Neuroscience*, 13(5), 546-556. https://doi.org/10.1093/scan/nsy016
- 8. Telzer, E.H., McCormick, E.M., Peters, S., Cosme, D., Pfiefer, J.H., & van Duijvenvoorde, A.C.K. (2018). Methodological considerations for developmental longitudinal fMRI research. *Developmental Cognitive Neuroscience*, 33, 149-160. https://doi.org/10.1016/j.dcn.2018.02.004
- 7. McCormick, E.M., Perino, M.T., & Telzer, E.H. (2018). Not just social sensitivity: Selective adolescent suppression of social feedback during risk taking. *Developmental Cognitive Neuroscience*, 30, 134-141. https://doi.org/10.1016/j.dcn.2018.01.012
- **6.** McCormick, E.M., & Telzer, E.H. (2018a). Not doomed to repeat: Enhanced neural tracking of errors promotes adaptive task performance during adolescence. *Journal of Cognitive Neuroscience*. 30(3), 281-289. https://doi.org/10.1162/jocn\_a\_01206
- 5. Qu, Y., Pomerantz, E.M., McCormick, E.M., & Telzer, E.H. (2018). Youth's conceptions of adolescence predict longitudinal changes in prefrontal cortex activation and risk taking. *Child Development*, 89(3), 773-783. https://doi.org/10.1111/cdev.13017
- 4. McCormick, E.M., Qu, Y., & Telzer, E.H. (2017). Activation in context: Differential conclusions drawn from cross-sectional and longitudinal analyses of adolescents' cognitive control-related neural activity. Frontiers in Human Neuroscience, 11, 141. https://doi.org/10.3389/fnhum.2017.00141
- **3.** McCormick, E.M., & Telzer, E.H. (2017b). Failure to retreat: Blunted sensitivity to negative feedback supports risky behavior in adolescents. *NeuroImage*, 147, 381-389. http://dx.doi.org/10.1016/j.neuroimage.2016.12.041
- 2. McCormick, E.M., & Telzer, E.H (2017a). Adaptive adolescent flexibility: Neurodevelopment of decision-making and learning in a risky context. *Journal of Cognitive Neuroscience*, 29, 413-423. https://doi.org/10.1162/jocn\_a\_01061
- 1. McCormick, E.M., Qu, Y., & Telzer, E.H. (2016). Adolescent neurodevelopment of cognitive control and risk-taking in negative family contexts. *NeuroImage*, 124, 989-996. http://dx.doi.org/10.1016/j.neuroimage.2015.09.063

#### **BOOK CHAPTERS**

1. Curran, P.J., Strauss, C., McCormick, E.M., & McGinley, J.S. (2023). A multivariate growth curve model for three-level data. In H. Cooper (Ed.) APA Handbook of Research Methods in Psychology, Second Edition. Washington, DC: American Psychological Association.

#### MANUSCRIPTS UNDER REVIEW

- **4.** Leshin, J.C., **McCormick, E.M.**, Doyle, C.M., Gates, K.M., Nam, C.S., & Lindquist, K.A. (*under review*). Situating Brain Activity in Social and Cultural Contexts During Emotion. *Emotion*.
- **3.** McCormick, E.M., & Bauer, D.J. (revise and resubmit). How should we model the effect of "change" or should we?. Psychological Methods.
- 2. †Parsons, S., & McCormick, E.M. (revise and resubmit). "Don't peek at your data" applies to longitudinal studies too: two time points poorly capture trajectories of change. Developmental Cognitive Neuroscience.

1. McCormick, E.M., Borgeest, G.S., & Kievit, R.A. (revise and resubmit). Interrupted mediation: A cautionary note on using derived metrics as intervening variables in path models. Perspectives on Psychological Science.

## MANUSCRIPTS IN PREPARATION

- 2. Schaaf, J.V., McCormick, E.M., Sørensen, Ø., & Kievit, R.A. (in prep). Modeling asymmetric timeseries using thresholded dynamic parameters.
- 1. McCormick, E.M., Curran, P.J., & Hancock, G.R. (in prep). Moderating the Consequences of Longitudinal Change for Distal Outcomes.

## INVITED TALK/WORKSHOP PRESENTATIONS

- **20.** McCormick, E.M. (September 2023). Mixed Effect and Structural Equation Modeling for Longitudinal Analysis. Talk presented online to the Quant Family Collective.
- 19. McCormick, E.M. (September 2023). Introductory and Advanced Longitudinal Modeling. Workshops presented at the 2023 Flux Congress Annual Meeting, Santa Rosa, CA, US.
- 18. McCormick, E.M. (March 2023). Introduction to Longitudinal Modeling. Workshop presented to the Department of Psychology & MRC Cognition and Brain Sciences Unit. Cambridge, UK.
- 17. McCormick, E.M. (February 2023). Introduction to SEM. Workshop presented to the Embodied Cognition Group, Aarhus University. Seville, ES.
- 16. McCormick, E.M. (November 2022). Introduction to SEM. Workshop presented to the Department of Experimental Psychology, University of Oxford, Oxford, UK.
- 15. McCormick, E.M. (October 2022). Establishing Trajectories in Longitudinal Models. Workshop presented to the University of Zürich Department of Psychology. Zürich, CH.
- 14. McCormick, E.M., Pagliaccio, D., Romeo, R.R., & Cardenas-Iniguez, C. (September 2022). Combatting LGBTQIA+ Discrimination in Access and Opportunity: A Call to Action for the Flux Society. Talk presented at the 2022 Flux Congress Annual Meeting, Paris, FR.
- 13. McCormick, E.M. (March 2022). Advanced considerations in longitudinal modeling. Preconference workshop presented at the 2022 Flux Congress Annual Meeting, Paris, FR.
- 12. McCormick, E.M. (March 2022). Selecting the right model for analyzing already-collected longitudinal data. Practical presented to the Fetal, Infant, & Toddler Neuroimaging Group (FIT'NG) Trainee Committee (remotely). https://vimeo.com/691030727/2fdbfdcf2f
- 11. McCormick, E.M., (February 2022). Linking brain structure and behavioral variability in dynamic structural equation models. Talk presented as a part of the Mellenbergh Lecture Series for the Psychological Methods group at the Unviersity of Amsterdam, Amsterdam, NL (remotely). https://sites.google.com/view/mellenberghlectures/lectures
- 10. McCormick, E.M. (January 2022). Bringing dynamic structural equation models to bear to model inter-individual differences in intra-individual performance variability. Talk presented at the Radoud University Medical Center's Neurodevelopmental Disorders Group Meeting, Nijmegen, NL.
- **9.** McCormick, E.M. (December 2020). Multi-level, multi-growth models: new opportunities for addressing developmental theory. Talk presented at the University of Melbourne, AU (remotely).
- **8.** McCormick, E.M. (November 2020). Multi-level, multi-growth models: new opportunities for addressing developmental theory. Talks presented at Cambridge University, UK and the University of Oregon, OR, USA (remotely).

- 7. McCormick, E.M. (August 2019). Constructing model-based networks. Talk presented at the ABCD Workshop on Brain Development and Mental Health, Portland, OR, USA.
- **6.** McCormick, E.M. (November 2018). Measuring Neural Change: Short and long-term plasticity in neural networks. Talk presented at the University of Pennsylvania, PA, USA.
- **5.** McCormick, E.M. (May 2018). Plasticity during adolescence: neural systems which support flexible behavior. Talk presented at the University of Leiden, Leiden, NL.
- **4.** McCormick, E.M. (March 2018). Neural Plasticity: Change in Response to Experience and Development. Talk presented at the University of North Carolina, Chapel Hill Developmental Lunch, Chapel Hill, NC, USA.
- **3.** McCormick, E.M. (February 2017). Neural Markers of Adaptive Flexibility in Adolescence. Talk presented at the University of North Carolina, Chapel Hill Developmental Lunch, Chapel Hill, NC, USA.
- 2. McCormick, E.M. (April 2016). fMRI Study of Cognitive Control in Teens Implications of cross-sectional vs. longitudinal analyses. Talk presented at the Modeling Longitudinal Data Meeting, Eugene, OR, USA.
- 1. McCormick, E.M. (April 2015). Longitudinal Links between Neural Development and Behavior in Early Adolescence. Talk presented at the University of Illinois, Urbana-Champaign Developmental Brownbag, Champaign, IL, USA.

#### CONFERENCE TALK PRESENTATIONS

- 13. McCormick, E.M. (March 2024). Latent Growth Factors as Predictors of Distal Outcomes. Talk to be presented at the Meeting of the Working Group Structural Equation Modeling, University of Twente, Enschede, NL.
- 12. McCormick, E.M. (September 2023). Using novel longitudinal models to test specific developmental hypotheses examples in the study of adversity. Talk presented at the 2023 Flux Congress Annual Meeting, Santa Rosa, CA, US.
- 11. McCormick, E.M. (September 2022). Advanced Modeling of Longitudinal Data in Developmental Cognitive Neuroscience. Pre-conference Workshop presented at the 2022 Flux Congress Annual Meeting, Paris, FR.
- 10. McCormick, E.M. (September 2021). Leveraging missing data to model simultaneous growth processes. Talk presented at the 2021 Flux Congress Annual Meeting, Remote.
- 9. McElwain, N.L., Chen, X., Ravindran, N., McCormick, E.M., & Telzer, E.H. (March 2019). Maternal Sensitivity during Toddlerhood Predicts Amygdala-PFC Functional Connectivity During Early Adolescence. Talk presented at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- 8. Telzer., E.H., Ivory, S., & McCormick, E.M. (March 2019). Altered neural connectivity and cognitive control to peer faces: Links to internalizing symptoms in adolescence. Talk presented at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- 7. Telzer, E.H., McCormick, E.M., McElwain, N.L. & Qu. Y. (March 2019). Family relationship quality and adolescent neural processing of risk taking. Talk presented at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- **6.** Van Hoorn, J., **McCormick, E.M.**, Rogers, C.R., & Telzer, E.H. (April 2018). Risk taking and peer effects in high-risk youth with externalizing behavior: Perspectives from brain and behavior. Talk presented at the 2018 Society for Research on Adolescence Biennial Meeting, Minneapolis, MN.

- **5.** Rogers, C.R., **McCormick, E.M.**, van Hoorn, J., & Telzer, E.H. (April 2018). Siblings and the teenage brain: sibling closeness and birth order modulate adolescent neural activity during safe decision-making. Talk presented at 2018 Society for Research on Adolescence Biennial Meeting, Minneapolis, MN.
- **4.** Rogers, C.R., **McCormick, E.M.**, van Hoorn, J., & Telzer, E.H. (September 2017). No, don't do it!" Neural correlates of sibling closeness during risky decision-making. Talk presented at the 2017 Flux Congress Annual Meeting, Portland, OR.
- **3.** McCormick, E.M., & Telzer, E.H. (April 2017). Adaptive adolescent flexibility: neurodevelopment of decision-making and learning in a risky context. Talk presented at the Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- 2. McCormick, E.M., & Telzer, E.H. (March 2016). Activation in context: Cross-Sectional and longitudinal analyses of adolescents' cognitive-control related neural activity. Talk presented at the Society for Research on Adolescence Biennial Meeting, Baltimore, MD.
- 1. Telzer, E.H., & McCormick, E.M. (November, 2015). Differential conclusions drawn for cross-sectional longitudinal analyses of adolescents' cognitive-control related neural activity: best practices fore examining brain behavior associations? Talk presented at the Conference on Longitudinal fMRI Analysis, Stockholm, SE.

### CONFERENCE POSTER PRESENTATIONS

- **21.** McCormick, E.M., Telzer, E.H, & Gates, K.M. (August 2019). Reliability in clustering solutions derived from resting state fMRI: Insights from the Human Connectome Project. Poster presented at the 2019 Flux Congress Annual Meeting, New York City, NY, USA.
- **20.** Duell, N., Van Hoorn, J., **McCormick, E.M.**, & Telzer, E.H (August 2019). The culture of socioeconomic status and social reward processing in adolescence. Poster presented at the 2019 Flux Congress Annual Meeting, New York City, NY, USA.
- 19. Jorgensen, N.A., McCormick, E.M., Lindquist, K.A., Prinstein, M.J., & Telzer, E.H (August 2019). The culture of socioeconomic status and social reward processing in adolescence. Poster presented at the 2019 Flux Congress Annual Meeting, New York City, NY, USA.
- 18. Kwon, S-J., Do, K.T., McCormick, E.M., & Telzer, E.H (August 2019). Neural correlates of conflicting social influences on adolescent risk-taking. Poster presented at the 2019 Flux Congress Annual Meeting, New York City, NY, USA.
- 17. Ravindran, N., McElwain, N.L., McCormick, E.M., & Telzer, E.H (March 2019). Warmth and negativity in mother-adolescent relationships: Associations with adolescents' neural responses to angry faces. Poster presented at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD, USA.
- 16. Chen, X., McCormick, E.M., McElwain, N.L., & Telzer, E.H (March 2019). Maternal emotion talk in early childhood predicts adolescents' neural activity when labeling facial emotion. Poster presented at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD, USA.
- 15. McCormick, E.M., & Telzer, E.H. (September 2018). Model-based network discovery of developmental and performance-related differences during risky decision-making. Poster presented at the 2018 Flux Congress Annual Meeting, Berlin, DE.
- 14. McCormick, E.M., & Telzer, E.H. (May 2018). Functional dynamics of the social brain: Network insights from the Human Connectome Project. Poster presented at the 2018 Flux Society Satellite Conference, Chapel Hill, NC, USA.

- 13. Chen, X., McCormick, E.M., McElwain, N.L., & Telzer, E.H. (May 2018). Maternal mental-state talk in early childhood predicts adolescents' neural activity to ambiguous facial emotions. Poster presented at the 2018 Flux Society Satellite Conference, Chapel Hill, NC, USA.
- 12. Qu, Y., Pomerantz, E.M., McCormick, E.M., & Telzer, E.H. (April 2018). Youth's conceptions of adolescence predict longituidnal changes in prefrontal cortex activation and risk taking during adolescence. Poster presented at the 2018 Social for Research on Adolescence Biennial Meeting, Minneapolis, MN, USA.
- 11. Do, K.T., McCormick, E.M., & Telzer, E.H. (April 2018). Is blood thicker than water? How conflicting parent and peer attitudes influence the neural correlates of adolescent conformity. Poster presented at the 2018 Social for Research on Adolescence Biennial Meeting, Minneapolis, MN, USA.
- 10. McCormick, E.M., van Hoorn, J., & Telzer, E.H. (March 2017). Functional network architecture of the social brain during childhood and adolescence. Poster presented at the 2017 Flux Congress Annual Meeting, Portland, OR, USA.
- 9. Ivory, S.I., McCormick, E.M., & Telzer, E.H. (March 2017). Can't fight this feeling: The impact of emotional faces on adolescents' cognitive control. Poster presented at the 2017 Meeting of the Social and Affective Neuroscience Society, Los Angeles, CA, USA.
- 8. van Hoorn, J., McCormick, E.M., & Telzer, E.H. (March 2017). Social learning and adaptive risk-taking in adolescence: Evidence from brain and behavior. Poster presented at the 2017 Meeting of the Social and Affective Neuroscience Society, Los Angeles, CA, USA.
- 7. McCormick, E.M., & Telzer, E.H. (March 2017). Not just social sensitivity: Selective adolescent suppression of social information during risk taking. Poster accepted to the 2017 Meeting of the Social and Affective Neuroscience Society, Los Angeles, CA, USA.
- **6.** McCormick, E.M., & Telzer, E.H. (September 2016). Two roads diverge: Context-specific outcomes associated with decreased neural sensitivity to negative feedback during adolescence. Poster presented at the Fourth Annual Meeting of the Flux Congress, St. Louis, MO, USA.
- 5. McCormick, E.M., & Telzer, E.H. (April 2016). Adaptive adolescent flexibility: Decision-making in a risky context. Poster presented at the 2016 Meeting of the Social and Affective Neuroscience Society, New York, NY, USA.
- **4.** Do, K.T., **McCormick, E.M.**, & Telzer, E.H. (April 2016). Prosocial and social brain development from childhood to adolescence. Poster presented at the 2016 Meeting of the Social and Affective Neuroscience Society, New York, NY, USA.
- **3.** McCormick, E.M., & Telzer, E.H. (September 2015). Longitudinal links between negative family relationships and adolescent cognitive control-related neural processing. Poster presented at the Third Annual Meeting of the Flux Congress, Leiden, NL.
- 2. McCormick, E.M., & Telzer, E.H. (September 2015). Longitudinal links between negative family relationships and adolescent cognitive control-related neural processing. Poster presented at the Satellite Meeting for the Society for Research in Child Development, Leiden, NL.
- 1. McCormick, E.M., & Telzer, E.H. (April 2015). Necessity of longitudinal analyses for understanding the neural development of cognitive control. Poster presented at the 2015 Meeting of the Social and Affective Neuroscience Society, Boston, MA, USA.

#### **SUPERVISION**

Yuqi Liu Leiden University, 2023 - present, Supervisor

Masters Project & Thesis, Spring 2023: "Time-coding effects in Latent Class

Growth Mixture Models"

PhD Thesis, Fall 2023 - present: "Stepwise estimation approaches of growth

mixture models"

Léa Michel Radboud University Medical Center, 2021 - present, Co-supervisor

PhD Thesis, Fall 2021 - present: "The brain structural mechanisms of cognitive

development"

#### INSTITUTIONAL SERVICE

Flux Strategic Plan Task Force	2023-2024
Quant Family Collective - Speaker and Faculty Mentor	2023 - present
Flux Diversity Working Group Member	2022 - present
Flux Diversity Session Planning Committee	2022
Flux LGBTQIA+ Affinity Group Coordinator	2021 - present
Flux Programme Committee Member	2022
Neuroscience Club Graduate School Panel, UNC	2019
fMRI Methodology & Coding Summer Seminar, UNC	2018
NeuroGrads Organizer, UNC	2018
Diversity Admissions Committee, UNC	2017 - 2018
Developmental Seminar Planning Committee, UNC	2017 - 2018
fMRI Methodology & Coding Summer Seminar, UNC	2017
fMRI Methodology & Coding Summer Seminar, UNC	2016
Graduate Student Recruitment Organizer, UIUC	2015 - 2016
fMRI Methodology Summer Seminar, UNC	2015

#### PROFESSIONAL AFFILIATIONS

Flux Society for Developmental Cognitive Neuroscience	Member
Social and Affective Neuroscience Society	Member
Society for Research on Child Development	Member
Society for Multivariate Experimental Psychology	$Invited\ Guest$
Psychometric Society	Member

## AD HOC REVIEWER

Developmental Cognitive Neuroscience; NeuroImage; Nature Neuroscience; Nature Communications; Scientific Reports; Journal of Neuroscience; Trends in Cognitive Science; Psychological Science; Human Brain Mapping; Biological Psychiatry; Cognitive, Behavioral, and Affective Neuroscience; Frontiers in Human Neuroscience; Social Cognitive and Affective Neuroscience; Cerebral Cortex; Child Development; Child Development Perspectives; Structural Equation Modeling; Multivariate Behavioral Research

#### TEACHING EXPERIENCE

## **Bachelors Courses**

Instructor, Multivariate Data Analysis Spring 2023

Leiden University

Supervisor, Bachelors Project Spring 2023

Leiden University

Instructor, Introduction to Statistics

Summer 2020

University of North Carolina at Chapel Hill

# Masters & Ph.D. Courses

Instructor, Psychometrics and Structural Equation Modeling Leiden University	Fall 2023
Instructor, Regression Modeling Leiden University	Fall 2023
Instructor, Applied Multivariate Data Analysis Leiden University	Spring 2023
Instructor, Data Visualization Leiden University	Spring 2023
Instructor, fMRI Data and Statistics Leiden University	Spring 2023
Supervisor, Masters Project Leiden University	Spring 2023

# TECHNICAL STRENGTHS

Programming Languages	R, Python, MATLAB, Visual Basics, Bash
Analysis Techniques	ANOVA, Regression, Mediation, Moderation, Multi-Level Modeling, Structural Equation Modeling, Latent Curve Modeling, Dynamic Structure Equation Modeling, Timeseries Analysis, Computational Modeling, Neural Network Analyses, Data Simulation, CART Analysis, Latent Class Analysis, Latent Profile Analysis, Mixture Models, Growth Mixture Models
Statistical Software	R, MPlus, SAS, Python, MATLAB, HLM, SPSS