Eric Martin Feltham

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Employment

Postdoctoral Research Scholar   **Sept. 2024 -**
Data Science Institute, Columbia University

Postdoctoral Associate   **June 2023 - Aug. 2024**
Yale Institute for Network Science and Department of Sociology, Yale University

Education

Ph.D., Sociology, Yale University (with Distinction)   **May 2023**
Dissertation: "Cognizing Social Networks"   *New Haven, CT*
Committee: Drs. Nicholas Christakis (chair), Emily Erikson, Laura Forastiere,
Ifat Levy
Winner of the 2024 Marvin B. Sussman Dissertation Prize from Yale University

M.A., Statistics, Yale University   **2018**
                                                                    New Haven, CT

B.A., Philosophy; B.A., Economics, University of Massachusetts Amherst   **2013**
magna cum laude, Phi Beta Kappa   *Amherst, MA*

Research interests

Social theory, social networks, computational social science, mathematical sociology, social
cognition, social psychology, political sociology, causal inference

Publications

Eric Feltham, Laura Forastiere, and Nicholas Christakis. "Cognitive representations of social networks in
isolated villages". *Nature Human Behaviour* (2025). https://doi.org/10.1038/s41562-025-02221-6
• Selected for a "Research Briefing" feature by *Nature Human Behaviour*.

Eric Feltham, Laura Forastiere, Marcus Alexander, Nicholas Christakis. (2023). "Mass gatherings for political
expression had no discernible association with the local course of the COVID-19 pandemic in the USA in 2020
and 2021". *Nature Human Behavior*. https://doi.org/10.1038/s41562-023-01654-1
• Featured in *FiveThirtyEight*.

Emily Erikson and **Eric Feltham**. (2021). "Structure". In *Research Handbook on Analytical Sociology*. Chel-
tenham, UK: Edward Elgar Publishing.

Emily Erikson and **Eric Feltham**. (2020). "Historical Network Research". In *Oxford Handbook of Social
Networks*. New York: Oxford UP. https://doi.org/10.1093/oxfordhb/9780190251765.001.0001

Philipp Homan, Ifat Levy, **Eric Feltham**, Charles Gordon, Jingchu Hu, Jian Li, Robert H. Pietrzak, Steven
Southwick, John H. Krystal, Ilan Harpaz-Rotem, Daniela Schiller. (2019). "Neural computations of threat in the
aftermath of combat trauma". *Nature Neuroscience* 22, 470–476. https://doi.org/10.1038/s41593-018-0315-x

Working papers

Eric Feltham. "The social and cultural context of social network cognition". (manuscript in prep.)

Eric Feltham and Nicholas Christakis. "Expecting Homophily". (manuscript in prep.)

Eric Feltham, Nicholas Christakis, and Laura Forastiere. "Sampling Cognitive Social Structures". (research
phase)

Eric Feltham and Nicholas Christakis. "The Networked Climate Game". (data collection phase)

Eric Feltham and Nicholas Christakis. "Risk Attitudes and Network Structure in Honduras". (research phase)

Eric Feltham. "Identity and Polarization". (manuscript in prep.)

Dominik Duell, **Eric Feltham**, Nicholas Christakis. "Revolutions *in silico*". (data collection phase)

Book

"Cognizing social networks" (working title). Manuscript in preparation.
• Book proposal under review

Other writing

"Cognitive representations of social networks in isolated villages." **Nature Human Behaviour Research Briefing** (in press). (Invited contribution by Nature Human Behaviour)

Eric Feltham and Nicholas Christakis. (2023). "Rapid research with a pandemic bearing down: Studying the impact of mass gatherings on the course of COVID-19". **Springer Nature Communities**. (Invited contribution to "Behind the Paper" series for the Springer Nature Social Sciences online community.)

Eric Feltham and Nicholas Christakis. (2020). "Voting In The 2020 Primaries Didn't Worsen The COVID-19 Pandemic". **FiveThirtyEight**.

Invited Talks

Eric Feltham. "Cognizing social networks"
• Department of Psychology, Harvard University (Cognition, Brain, Behavior Seminar), September 2025
• Department of Sociology, Yale University (Sussman Award Lecture), May 2025

Eric Feltham. "Modeling the Effect of Identity on Polarization" Center for Empirical Research on Stratification and Inequality, Yale University, January 2019

Eric Feltham. "Experiments on Observational Learning", Yale Institute for Network Science, August 2018

Eric Feltham. "Using Tools from Causal Inference to Reconstruct Simulated Social Data"
• DARPA Workshop, Alexandria, VA, 2018

Conference Presentations

Eric Feltham. "Cognizing social networks"
• International Conference on Computational Social Science, Norrköping, Sweden, July 2025
• American Sociological Association (Sections on Social Psychology and Mathematical Sociology), Montréal, August 2024
• Implementation and Dissemination Science Workshop, Copán, Honduras, June 2023

Eric Feltham. "Expecting Homophily"
• Annual Conference of the International Network of Analytical Sociology, Columbia University, June 2025

Megha Chawla et al. "Cortical thickness and volume of the right posterior parietal cortex predict individual learning rate"
• Society for Neuroscience, San Diego, 2018

Honors and awards

Sussman Prize for best dissertation in the past two years   **2024**
Yale Department of Sociology, New Haven, CT

Commonwealth Honors College Scholar with Greatest Distinction   **2013**
University of Massachusetts Amherst, Amherst, MA

- Awarded based on thesis quality and GPA

GRANTS

National Institutes of Health, The National Institute on Aging and the Office of Behavioral and Social Sciences Research   **2022**

Research Grant (R-01), "Characterizing Individuals' Cognitive Maps of their Village Social Networks"

- Award: $3,226,809 (over 4 years)
- PI: Dr. Nicholas Christakis
- Role: Researcher

Robert Wood Johnson Foundation   **2020**

"Assessing the Hazard of Elections During the COVID-19 Pandemic"

- Award: $350,000
- PI: Dr. Nicholas Christakis
- Role: Researcher

RESEARCH EXPERIENCE

Graduate Researcher   **2016 - 2023**

Yale Institute for Network Science and Human Nature Lab, New Haven, CT

- Designed and led large scale data collection and analysis efforts on individuals' perceptions of social network structure in 82 villages in rural Honduras
- Developed sampling method for cognitive social structures research design
- Conducted fieldwork in rural Honduras to support data collection and analysis effort for thesis project
- Developed generalized difference-in-differences methodology to estimate the impact of large-scale political gatherings on the spread of COVID-19 in the USA

Research Fellow   **2019**

Dr. Emily Erikson, Yale University, New Haven, CT

- Analyzed historical social network data consisting of English economic manuscript writers from the 18th century
- Applied topic modeling to uncover trends in the economic literature over a roughly 200-year period

Graduate Researcher   **2018**

Drs. James Evans, Michael Franklin, Joshua Tenenbaum, University of Chicago, Chicago, IL

- Part of a team on a grant "Social MIND: Social Machine Intelligence for Novel Discovery"

Research Assistant   **2014 - 2016**

Levy and Harpaz-Rotem Labs, Yale University School of Medicine, New Haven, CT

- Independently performed fear conditioning experiments with human participants in behavioral and MRI settings
- Preprocessed and analyzed fMRI data using BrainVoyager software

Research Assistant   **2014**

Schiller Affective Neuroscience Lab, Mount Sinai Icahn School of Medicine, New York, NY

- Independently performed human subject trials investigating the effects of a pharmacological agent on memory formation and persistence

Undergraduate Honors Thesis   **2013**

University of Massachusetts Amherst Commonwealth Honors College, Amherst, MA

- Title: "Unconscious Attention? Inattentional Consciousness? Examining the Relationship Between Attention and Phenomenal Consciousness"
- Committee: Drs. Joseph Levine and Louise Anthony

Software

TSCSMethods.jl (sole author)
- Performs non-parametric generalized differences-in-differences estimation, with covariate matching

Margins.jl (sole author)
- Computes marginal effects for Computes average marginal effects for generalized linear models and generalized linear mixed models
- Designed for flexibility in defining custom inverse link functions and derivatives

SamplingPerceivedNetworks.jl (sole author)
- Implements a sampling procedure for "cognitive social structures" data collection

Typst.jl (sole author)
- Implements an interface from the Julia language to the mark-up language Typst for academic writing

GraphDataFrameBridge.jl (contributor)
- Contributed functions to process network data

Teaching

Yale College, New Haven, CT   **Jan. 2023 - May 2023**
Teaching Fellow

- Course: Sociology of Crime and Deviance SOCY 141b

Yale College, New Haven, CT   **Sep. 2022 - Dec. 2022**
Teaching Fellow

- Course: Health of the Public SOCY 126a

Yale College, New Haven, CT   **Jan. 2022 - May 2022**
Teaching Fellow

- Course: Topics in Contemporary Social Theory SOCY 152b

Yale College, New Haven, CT   **Sep. 2021 - Dec. 2021**
Teaching Fellow

- Course: Sex and Gender in Society SOCY 134a

Yale College, New Haven, CT   **Jan. 2020 - May 2020**
Teaching Fellow

- Course: Health of the Public SOCY 126b

Yale College, New Haven, CT   **Sep. 2019 - Dec. 2019**
Teaching Fellow

- Course: Foundations of Modern Social Theory SOCY 151a

Yale College, New Haven, CT   **Jan. 2019 - May 2019**
Teaching Fellow

- Course: Social Networks and Society SOCY 167b

Yale College, New Haven, CT   **Sep. 2018 - Dec. 2018**
Teaching Fellow

- Course: Computers, Networks and Society SOCY 133a

Mentoring

Karen Gao (Computer Science and Psychology, Yale College 2027)

Ashley Oaks (Statistics and Data Science, PhD Student)

Breanna Nguyen (Cognitive Science, Yale College 2025)

Kaity Chandrika (Sociology, Yale College 2025)

Justice Harasha (Economics and Mathematics, Yale College 2024)

Kayla Morgan (Cognitive Science, Yale College 2024)

Benjamin Snyder (Economics, Yale College 2022)

Service

Ad hoc reviews

- Proceedings of the National Academy of Sciences of the United States of America
- Group Processes & Intergroup Relations
- Risk Analysis
- Policy Analysis
- Yale Undergraduate Research Journal

Skills

Languages

Julia, R, MATLAB, Python, Spanish (basic), French (basic)

Selected coursework

Theory of Statistics, Multivariate Statistical Analysis, Linear Models, Stochastic Processes, Computational Tools for Data Science, Research Design & Causal Inference, Social Network Analysis, Topics in Biosocial Science, The Microeconomics of Coordination and Conflict

Advocacy

Campaign Coordinator   **2010 - 2011**
Students for a Just and Stable Future, Boston, MA

- Spoke at public events to represent the organization
- Coordinated a campaign with community members and college students from across Massachusetts
- Worked on climate policy for MA state legislation

Team Leader   **June 2010 - Aug. 2011**
Better Future Project, Boston, MA

- Led a team of four members and coordinated their roles relating to media, events, and housing
- Organized events discussing the impacts of economic and environmental policy

REFERENCES

1. Dr. Peter Bearman, Cole Professor of Social Science in the Department of Sociology, Columbia University
   - psb17@columbia.edu

2. Dr. Nicholas Christakis, Sterling Professor of Social and Natural Science, Yale University
   - nicholas.christakis@yale.edu

3. Dr. Emily Erikson, Professor of Sociology and (by courtesy) Management, Yale University
   - emily.erikson@yale.edu

4. Dr. Laura Forastiere, Associate Professor of Biostatistics, Yale School of Public Health, Yale University
   - laura.forastiere@yale.edu

5. Dr. Ifat Levy, Associate Professor of Comparative Medicine, Neuroscience, and Psychology, Yale School of Medicine, Yale University
   - ifat.levy@yale.edu