Haoxue Fan

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EDUCATION

Harvard University, Cambridge, MA, USA

2024 (Expected)

Ph.D. Candidate, Psychology

Secondary Candidate, Computational Science and Engineering

M.A. Psychology

2022

Dissertation comittee: Dr. Elizabeth Phelps (main primary), Dr. Samuel Gershman, Dr. Fiery Cushman

Peking University, Beijing, China

2019

B.S. in Psychology (Economics minor), graduated with honors

Advisor: Dr. Jian Li

University of California, Berkeley, Berkeley, CA, USA

2017

Visiting student (Summer Session)

RESEARCH **INTERESTS**

Learning and decision-making, Information-seeking, Emotion, Social cognition, Computational Psychiatry

PUBLICATION AND **MANUSCRIPT**

Fan, H., Gershman, S. J., & Phelps, E. A. (2022) Trait somatic anxiety is associated with reduced directed exploration and underestimation of uncertainty. Nature Human Behavior [pdf]

Hart, B., Achakulvisut, T., Adeyemi, A., Akrami, A., Alicea, B., Alonso-Andres, A., ... Fan, H., ... & Wallisch, P. (2022). Neuromatch Academy: a 3-week, online summer school in computational neuroscience. Journal of Open Source Education, 5(49) pdf

Castillo, J*., Fan, H*., Karaman, O.T., Shu, J., Stussi, Y., Kredlow, M.A., Vranos, S., Oyarzun, J.P., Dorfman, H., Sambrano, D., Merskin, R., Hirst, W., & Phelps, E. A. (submitted) Overestimating negative emotion in autobiographical memory: evidence from memories for the COVID-19 pandemic and 9/11 attacks (*: Equal Contribution) [pdf]

Kredlow, M.A*., Oyarzun, J.P*., Fan, H., Meskin, R., Hirst, W. & Phelps, E.A. (revise and resubmit) Language use in narratives of the 9/11 attacks predicts longterm memory [pdf]

Fan, H., Burke, T., Sambrano, D. C., Dial, E., Gershman, S. J., & Phelps, E. A.(submitted) Pupil size encodes uncertainty during exploration [pdf]

INVITED TALK Fan, H. (Mar 2023). TBD. Yale University, Rutledge Lab

Fan, H. (Feb 2023). Pupil encodes uncertainty during exploration. Harvard University, Cognition, Brain, and Behavior Seminar

Fan, H. (Feb 2023). Trait somatic anxiety is associated with reduced directed exploration and underestimation of uncertainty. Harvard University, Goldenberg Lab

Fan, H. (Oct 2022). Trait somatic anxiety is associated with reduced directed exploration and underestimation of uncertainty. Chinese Computational Psychiatry Association.

Fan, H. (Oct 2021). Trait somatic anxiety is associated with reduced directed exploration and underestimation of uncertainty. McGill University, Otto Lab.

Fan, H. (Oct 2021). Trait somatic anxiety is associated with reduced directed explo-

ration and underestimation of uncertainty. Max Planck Institutes Tübingen, Computational Psychiatry Journal Club.

CONFERENCE TALK

Fan, H.*, Castillo, J.*, Karaman, O. T., Shu, J., Stussi, Y., Kredlow, M. A., Vranos, S., Oyarzun, J. P., Dorfman, H., Sambrano, D., & Phelps, E. A. (Nov, 2022). Overestimating stress experienced early during the pandemic is associated with decreased emotional well-being. Symposium talk presented as part of "Exploring Relationships Between Various Cognitive Mechanisms and COVID-19 Emotional Distress" at the 56th annual convention of the Association for Behavioral and Cognitive Therapies (New York, NY)

Fan, H., Gershman S.J., & Phelps E.A. (September, 2021). Trait somatic anxiety is associated with reduced directed exploration and underestimation of uncertainty. Society for Neuroeconomics Annual Meeting (virtual). silver best talk award

CONFERENCE POSTER.

Fan, H., Gershman S. J., & Phelps E. A. (June, 2022). Trait somatic anxiety is associated with reduced directed exploration and underestimation of uncertainty. 20th Summer Institute on Bounded Rationality, Berlin, Germany

Castillo, J.*, Fan, H.*, Karaman, O. T., Shu, J., Stussi, Y., Kredlow, M. A., Vranos, S., Oyarzun, J. P., Dorfman, H., Sambrano, D., & Phelps, E. A. (May, 2022). Overestimating stress experienced early during the pandemic is associated with decreased emotional well-being. *Social and Affective Neuroscience Society Annual Meeting (virtual)*

Aslarus I., Kredlow, M.A., Fan H., &Phelps, E.A. (May, 2022). Novelty Exposure Interferes with Visual Emotional Memory Consolidation. *Social and Affective Neuroscience Society Annual Meeting (virtual)*

Kredlow, M.A., Oyarzun, J.P., Fan, H., Meskin, R., Hirst, W. & Phelps, E.A. (November, 2021). Do linguistic features of trauma narratives predict trauma-related emotions and memory over time? Symposium presented as part of "Making sense of trauma memories: Characteristics and responses to trauma narratives as predictors of PTSD outcomes" at the 37th annual conference of the International Society for Traumatic Stress Studies (virtual)

Fan, H., Gershman S. J., & Phelps E. A. (Apr., 2021). Distinct Effects of Trait Anxiety Components on Exploration Wisconsin Symposium on Emotion (virtual)

Heffner, J., Son, J., Fan, H., & FeldmanHall, O. (May, 2019). The Joy of Punishment: Early Emotional Reactions Predict Decisions to Restore Justice. Social and Affective Neuroscience Society Annual Meeting, Miami Beach, Florida

HONORS AND AWARDS

Certificate of Distinction in Teaching, Harvard University	2022
GSAS Professional Development Fund, Harvard University	2022
Silver Best Talk Award, Society for Neuroeconomics Annual Meeting	2021
Outstanding Graduate Award, Beijing Municipal Education Commission	2019
College Student Research Program, Beijing Municipal Education Commission	2017
National Scholarship, Ministry of Education of China 2017	7, 2018
Pacemaker to Merit Student, Peking University 2017	7, 2018
Xinhe Scholarship, Peking University	2016

RESEARCH TRAINING

 ${\bf Summer\ Institute\ on\ Bounded\ Rationality}(June,\,2022),\,{\it Berlin,\ Germany}$

TEACHING EXPERIENCE

Instructor, Let me google it: Information seeking (avoidance) in everyday life, Janurary 2021 (a five-lecture introductory psychology course)

Teaching Assistant, PSY 1322: Decisions Big and Small: The Cognitive Science of

Making Up Your Mind (Instructor: Dr. Tomer Ullman), Spring 2023

Teaching Assistant, PSY 1901: Methods of Behavioral Research (Instructor: Dr. Mina Cikara), Fall 2022

Teaching Assistant, PSY 1401: Computational Cognitive Neuroscience: Building Models of the Brain (Instructor: Dr. Samuel J. Gershman), Spring 2022

Teaching Assistant, AM 207: Stochastic Methods for Data Analysis, Inference and Optimization (Instructor: Dr. Weiwei Pan), Fall 2021

Teaching Assistant, online R workshop on Fundamentals of Tidyverse (Instructors: Drs. Kelly Bodwin & Hunter Glanz), Jan 2021

SERVICE AND VOLUNTEER

Present

Orientation Panelist, Harvard University Department of Psychology, 2022

Mentoring Co-chair, Harvard Graduate Women in Science and Engineering, 2022 -

Graduate Student Organizer, Innovators in Cognitive Neuroscience, 2022 Graduate Student Interview Day Committee, Harvard University Department

of Psychology, 2022 **Student Salon Host**, Theme: Studying emotion in decision-making. co-hosted with Dr. Ian Robert. Society for Neuroeconomics Annual Meeting 2021 (virtual), 2021

Graduate Student Representative, Harvard University Department of Psychology, 2021 - Present

Event Coordinator, Harvard Women in Psychology, 2021 - Present

PPREP Identity and Empowering Panelist, *Harvard Prospective PhD and RA Event in Psychology*, 2021, 2022

PPREP Mentor, Harvard Prospective PhD and RA Event in Psychology, 2020, 2021 International Community Conversation Facilitator, Harvard GSAS orientation, Aug 2020

Video Caption Editor, Neuromatch Academy 2020, Aug 2020

MENTORSHIP EXPERIENCE

Certificate in Mentoring Undergraduates in Science, Harvard University, Apr 2022

Mentored Harvard Undergraduates:

Rachel Mehler (co-advise with Hayley Dorfman), 2023-Present Bryan Dong (co-advise with Hayley Dorfman), 2023-Present

Ecem Sena Uluegeci (co-advise with Hayley Dorfman), 2022-Present

Emily Dial, 2022-Present

Isabella Caterina Aslarus (co-advise with Xandra Kredlow), 2020-2021 (Current: Lab Manager, Brown University)

TECHNICAL SKILLS

Python, R, MATLAB, Web Programming (Javascript, HTML, CSS), Qualtrics, SPSS, Git, LATEX