WASITA MAHAPHANIT

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RESEARCH INTERESTS

How can we effectively collaborate with others and enhance our understanding of the world, given our unique viewpoints and incomplete access to information? In other words, how do we adaptively interact with others and improve our mental models of the world in the face of uncertainty? What role does communication and other types of interaction play in this collaborative effort, and how are these processes computationally supported? To investigate these questions, I employ a range of techniques, including large-scale real-time online behavioral experiments, natural language processing (NLP), and computational modeling.

EDUCATION

Dartmouth College
2021 – Present
Ph.D. Candidate in Cognitive Neuroscience
Hanover, NH
Advisor: Luke J. Chang

Brown University
2014 – 2018
B.S., Cognitive Neuroscience (Honors)
Providence, RI
Advisor: Amitai Shenhav

RESEARCH EXPERIENCE

Graduate Student Researcher
2021 – Present
Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)
Hanover, NH
cosanlab.com
Advisor: Luke J. Chang
Research focuses: collaboration, communication, theory of mind, dyadic & group social interactions, social networks, fMRI

Lab Manager/Research Assistant
2018 – 2021
Brown University | Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)
Providence, RI
lnccbrown.com
Advisor: Michael J. Frank
Research focuses: computational psychiatry (esp. OCD), reinforcement learning, decision-making, EEG, pharmacology, Parkinson's Disease

Undergraduate Research Assistant
2016 – 2018
Brown University | Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)
Providence, RI
shenhavlab.org
Advisor: Amitai Shenhav
Research focuses: cognitive control, performance monitoring, task-switching, EEG

Summer Undergraduate Research Intern
2016 – 2018
Providence VA Medical Center
Providence, RI
vivo.brown.edu/display/nphilip
Advisor: Noah Philip
Research focuses: major-depressive disorder, post-traumatic stress disorder, rTMS

TEACHING EXPERIENCE

Graduate Teaching Assistant
Spring 2023
Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)
Hanover, NH
Cognitive Psychology

Professor: Viola Störmer

Graduate Teaching Assistant
Fall 2022
Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)
Hanover, NH

Principles of Human Brain Mapping with fMRI
Professor: Luke J. Chang

Graduate Teaching Assistant
Spring 2022
Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)
Hanover, NH

Emotion
Professor: Mark Thornton

Graduate Teaching Assistant
Fall 2021
Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)
Hanover, NH

Principles of Human Brain Mapping with fMRI
Professor: Luke J. Chang

Undergraduate Teaching Assistant
Spring 2018
Brown University | Dept. of Computer Science
Providence, RI

Intro to Scientific Computing and Problem Solving
Professor: Daniel Potter

Undergraduate Teaching Assistant
Fall 2017
Brown University | Dept. of Cognitive, Linguistic, & Psychological Sciences (CLPS)
Providence, RI

Intro to Programming
Professor: Thomas Serre

PAPERS

Culbreth, A., Moran, E. **Mahaphanit, W.**, Erickson, M., Boudewyn, M., Frank, M.J., Barch, D., MacDonald III, A., Ragland, J., Luck, S., Silverstein, S., Carter, C., & Gold, J. (2023). A Transdiagnostic Study of Effort-Cost Decision-Making in Psychotic and Mood Disorders. Schizophrenia Bulletin.

Provenza, N.R., Gelin, L., **Mahaphanit, W.**, McGrath, M., Dastin-van Rijin, E., Fan, Y., Dhar, R., Frank, M.J., Restrepo, M.I., Goodman, W.K., and Borton, D. (2021). Honeycomb: a template for reproducible psychophysiological tasks for clinic, laboratory, and home use. Brazillian Journal of Psychiatry.

PAPERS IN PREPARATION

Mahaphanit, W., Chang, L.J. (In prep.). Forming connections using a naturalistic synchronous viewing paradigm

Mahaphanit, W., Chang, L.J. (In prep.). Communication as behavioral annotations for experimental stimuli

Mahaphanit, W., Provenza, N., Frank, M.J., Borton, D., and Nassar, M. (In prep.). Computations in information-seeking behavior and decision-making in obsessive-compulsive disorder (OCD)

Mahaphanit, W., Geana, A., and Frank, M.J. (In prep.). Perceptual uncertainty disrupts credit assignment in stimulus value learning and perceptual categorization

TALKS

Mahaphanit, W. (December 2023). Web dev approaches to studying social interactions. Social Interaction Lab (PI: Robert Hawkins) meeting. University of Wisconsin-Madison, WI.

Mahaphanit, W. (November 2023). Learning to communicate a shared wavelength. New England Research on Decision-Making (NERD) conference at Harvard University, Cambridge, MA.

Mahaphanit, W. (October 2023). Learning to collaboratively communicate a shared wavelength. Social Interaction Lab (PI: Robert Hawkins) meeting. University of Wisconsin-Madison, WI.

Mahaphanit, W. (October 2023). Does shared reality generalize? Social Interaction Lab (PI: Robert Hawkins) meeting. University of Wisconsin-Madison, WI.

Mahaphanit, W. (September 2023). Learning to collaboratively communicate a shared wavelength. Social Lab (SLAB) Talk Series at Dartmouth College, Hanover, NH.

Mahaphanit, W. (August 2023). Does shared reality generalize? Methods in Neuroscience at Dartmouth (MIND) Summer School at Dartmouth College, Hanover, NH.

Mahaphanit, W. (May 2023). Decision-Making. Guest lecture for PSYC 028 (Cognitive Psychology) class taught by Prof. Viola Störmer at Dartmouth College, Hanover, NH.

Mahaphanit, W. (September 2022). On using a chat app to study communication and shared reality. Social Lab (SLAB) Talk Series at Dartmouth College, Hanover, NH.

Mahaphanit, W. (May 2022). Evolutionary game theory. Guest lecture for PSYC 043 (Emotion) class taught by Prof. Mark Thornton at Dartmouth College, Hanover, NH.

Mahaphanit, W. (October 2021). On building a chat app for studying shared reality construction in communication. Social Lab (SLAB) Talk Series at Dartmouth College, Hanover, NH.

Mahaphanit, W. (December 2020). Computations in information-seeking and decision-making in Obsessive Compulsive Disorder. Learning, Memory, & Decision Lab (PI: Matthew Nassar) meeting. Brown University, Providence, RI.

Mahaphanit, W. (November 2020). Intro to Honeycomb: a template for reproducible psychophysiological task creation. Center for Computation & Visualization (CCV) tutorial series. Brown University, Providence, RI.

Mahaphanit, W. (June 2020). Computations in information-seeking and decision-making in Obsessive Compulsive Disorder. Brown Unconference on Computational Intelligence and Applications. Brown University, Providence, RI.

Mahaphanit, W. (May 2018). The costs of having better alternatives. Departmental undergraduate honors thesis oral defense presentation. Brown University, Providence, RI.

POSTERS

Mahaphanit, W., Chang, L.J. (February 2024). Shared experiences strengthen social connectedness through shared impression formation and communication behavior. Accepted at the Society for Personality & Social Psychology (SPSP). San Diego, California.

Mahaphanit, W., Chang, L.J. (July 2023). Shared experiences strengthen social connectedness through shared impression formation and communication behavior. Presented at the Cognitive Science Society (CogSci). Sydney, Australia.

Mahaphanit, W., Chang, L.J. (April 2023). Are shared experiences blind? Presented at the Social and Affective Neuroscience Society (SANS). Santa Barbara, CA.

Geana, A., **Mahaphanit, W.**, Frank, M.J. (October 2019). The role of perceptual uncertainty in value learning and naturalistic stimulus categorization. Presented at the Society for Neuroscience (SfN). Chicago, IL.

Mahaphanit, W., Geana, A., Frank, M.J. (July 2019). Perceptual uncertainty influences stimulus value learning in perceptual categorization. Presented at the 4th Multidisplinary conference on Reinforcement Learning and Decision Making (RLDM). Montreal, CA.

Provenza, P., Dastin-van Rijn, E., McLaughlin, N., Sheth, S., Viswanathan, A., Vogt, G., Ramakrishnan, R., McIngvale, E., Storch, E., **Mahaphanit, W.**, Nassar, M., Frank, M.J., Ertugrul, I., Jeni, L., Cohn, J., Borton, D., Goodman, W. (April 2019). Preliminary experience with developing adaptive Deep Brain Stimulation for Obsessive Compulsive Disorder. Presented at the 5th Annual BRAIN Investigator's Meeting. Washington, DC.

AWARDS & HONORS

Neukom Travel Award ($1,000) | Dartmouth College	July 2024
Neukom Travel Award ($1,000) | Dartmouth College	April 2023
NSF Graduate Research Fellowship | Honorable Mention	April 2022
B.S. in Cognitive Neuroscience with Honors	May 2018
Sigma Xi | Nominated to Brown University Chapter	May 2018
Deep Learning Datathon @ Brown University | 1st Place	January 2018

FELLOWSHIPS & SCHOLARSHIPS

Karen T. Romer Undergraduate Teaching & Research Award ($3,500) | Brown University — Summer 2017

Karen T. Romer Undergraduate Teaching & Research Award ($1,000) | Brown University — Spring 2014

Sorensen Family Chancellor's Scholarship | Brown University — 2015-2017

Junior Volunteer Endowment Scholarship ($2,000) | Maine Medical Center — Spring 2014

SCIENTIFIC & COMMUNITY OUTREACH

Software Engineer for Featured Trust Game & fMRI Operator | PBS NOVA | Episode: Who's in Control? — May 2023

Podcast Guest | Svelte Radio | Svelte in Research at Dartmouth with Wasita & Eshin — April 2023

Site Maintainer | Website Working Group | Women in Network Science (WiNS) Society — 2022-Present

Content Contributor & Site Maintainer | Info Theory Book (cosanlab.github.io/info-theory-book) — 2022-Present

Content Contributor & Site Maintainer | Intro to FMRI at Dartmouth (dartbrains.org) — 2021-Present

Pre-Grad Mentor & Consultant | Project SHORT — 2020-Present

Contributing Software Engineer | Honeycomb (brown-ccv.github.io/honeycomb-docs) — 2019-2021

Rhode Island Brain Week Booth Organizer | brainweekri.org — 2018-2020

Rhode Island Brain Week Booth Participant | brainweekri.org — 2017-2018

RESEARCH TRAINING

Methods in Neuroscience at Dartmouth (MIND) Summer School | Dartmouth College — 2023

Computational Neuroscience | Neuromatch Academy — 2021

Carney Computational Modeling Workshop | Brown University — 2018

PROFESSIONAL & DEPARTMENTAL SERVICE

Social Lab (SLAB) Talk Series Co-organizer | Dartmouth PBS — 2021-Present

Consortium for Interacting Minds (CIM) Seminar Series Co-organizer | Dartmouth PBS — 2021-Present

Meeting Harmonization Committee | Dartmouth PBS — 2021-Present

Teaching Assistant Repository Creation & Organization Committee | Dartmouth PBS — 2022-2023

Transitioning from Intro to Programming to Career in Computation | Alumni Panelist | Brown CLPS — 2021

Managing Minds (lab manager peer mentoring group) Founder & Organizer | Brown Carney/CLPS — 2019-2021

Cognitive Neuroscience DUG Alumni Career Panelist | Brown CLPS — 2018