

WASITA MAHAPHANIT

wasita.gr@dartmouth.edu | [website](#) | [github](#)

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 primarily use large-scale real-time online behavioral experiments, natural language processing (NLP), and computational modeling.

EDUCATION

Dartmouth College

Jan 2021 — Present

Ph.D. Candidate in Cognitive Neuroscience

📍 Hanover, NH

Advisor: Luke J. Chang

Committee: Luke J. Chang, Jonathan S. Phillips, Thalia Wheatley, & Robert D. Hawkins

Brown University

2014 — 2018

B.S., Cognitive Neuroscience (Honors)

📍 Providence, RI

Co-advisors: Amitai Shenhav & Romy Frömer

RESEARCH EXPERIENCE

Doctoral Researcher

Jan 2021 — Present

Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)

📍 Hanover, NH

[Computational Social Affective Neuroscience \(COSAN\) Lab](#)

Co-advisors & Collaborators: Luke J. Chang & Robert D. Hawkins

Research focuses: shared experience, collaboration, communication, theory of mind, dyadic & group social interactions, NLP, Bayesian inference

Lab Manager

Jun 2018 — Dec 2020

Brown University | Dept. of Cognitive, Linguistics, & Psychology (CLPS)

📍 Providence, RI

[Laboratory of Neural Computation + Cognition \(LNCC\)](#)

Co-advisors & Collaborators: Michael J. Frank, Andra Geana, & Matt Nassar

Research focuses: computational psychiatry (esp. OCD), reinforcement learning, decision-making, EEG, pharmacology, Parkinson's Disease

Undergraduate Research Assistant

Brown University | Dept. of Cognitive, Linguistics, & Psychology (CLPS)

Shenhav Lab

Co-advisors & Collaborators: Amitai Shenhav & Romy Frömer

Research focuses: cognitive control, performance monitoring, task-switching, EEG

Sept 2016 — Jun 2018

📍 Providence, RI

Summer Undergraduate Research Intern

Providence VA Medical Center

Psychiatric Neuromodulation Clinic

Advisor: Noah S. Phillips

Research focuses: major-depressive disorder, post-traumatic stress disorder, rTMS

May 2016 — Jun 2016

📍 Providence, RI

TEACHING EXPERIENCE

Graduate Teaching Assistant

Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)

Cognitive Psychology

Professor: Viola Stoermer

Spring 2023

📍 Hanover, NH

Graduate Teaching Assistant

Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)

Human Brain Mapping with fMRI

Professor: Luke J. Chang

Fall 2022

📍 Hanover, NH

Graduate Teaching Assistant

Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)

Emotion

Professor: Mark Thornton

Spring 2022

📍 Hanover, NH

Graduate Teaching Assistant

Dartmouth College | Dept. of Psychological & Brain Sciences (PBS)

Human Brain Mapping with fMRI

Professor: Luke J. Chang

Fall 2021

📍 Hanover, NH

Undergraduate Teaching Assistant

Brown University | Dept. of Computer Science

Intro to Scientific Computing and Problem Solving

Professor: Daniel Potter

Spring 2018

📍 Providence, RI

Undergraduate Teaching Assistant

Brown University | Dept. of Cognitive, Linguistics, & Psychology (CLPS)

Intro to Programming

Professor: Thomas Serre

Fall 2017

📍 Providence, RI

WORKING PAPERS

Mahaphanit, W.*, Welker, C.*, Schmidt, H., Chang, L.J., & Hawkins, R.D. (In Prep). When & why do we infer commonalities in social interactions?

Mahaphanit, W. & Chang, L.J. (In Prep). Are shared experiences blind?

Mahaphanit, W. & Chang, L.J. (In Prep). Communication as behavioral annotation for naturalistic stimuli.

Kang, J., **Mahaphanit, W.**, Provenza, N., Nassar, M., Allam, A., Bechtold, R., Diab, N., Rajesh, S., Reddy S., Reyes, G., Dastin-van Rijn, E., Gandhi, A., Hirani, S., Banks, G., Dang, H., Avendano-Ortega, M., McKay, S., Borton, D., Frank, M.J., Storch, E., Herron, J., Goodman, W., Hayden, B., & Sheth, S. (In Prep). The effect of adaptive deep brain stimulation for obsessive-compulsive disorder in cognitive self-control under uncertainty.

PREPRINTS

Mahaphanit, W.*, Welker, C.*, Schmidt, H., Chang, L.J., & Hawkins, R.D. (2024). When & why does shared reality generalize?

PsyArXiv [\[PDF\]](#)

PROCEEDINGS PAPERS

Mahaphanit, W.*, Welker, C.*, Schmidt, H., Chang, L.J., & Hawkins, R.D. (2024). When & why does shared reality generalize?

Proceedings of the 46th Annual Conference of the Cognitive Science (CogSci) Society [\[PDF\]](#)

Mahaphanit, W., Welker, C., Schmidt, H., Chang, L.J., & Hawkins, R.D. (2024). How does shared reality generalize?

Proceedings of the 7th Annual Conference on Cognitive Computational Neuroscience (CCN)

JOURNAL 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* [\[PDF\]](#)

Provenza, N.R., Gelin, L., **Mahaphanit, W.**, McGrath, M., Dastin-van Rijn, 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. *Brazilian Journal of Psychiatry* [\[PDF\]](#)

TALKS

Mahaphanit, W. (November 2024). Inferring commonalities in social interactions. Crockett Lab Meeting (PI: Molly Crockett), Princeton University, Princeton, NJ.

Mahaphanit, W. (July 2024). When & why does shared reality generalize? Cognitive Science (CogSci) Society conference, Rotterdam, Netherlands.

Mahaphanit, W. (February 2024). Are shared experiences blind? Shared Reality Mini-Conference, Virtual.

Mahaphanit, W. (December 2023). Web dev approaches to studying social interactions. Social Interaction Lab Meeting (PI: Robert D. Hawkins), Virtual.

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

Mahaphanit, W. (October 2023). Learning to communicate a shared wavelength. Social Interaction Lab Meeting (PI: Robert D. Hawkins), Virtual.

Mahaphanit, W. (October 2023). Does shared reality generalize? Social Interaction Lab Meeting (PI: Robert D. Hawkins), Virtual.

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

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

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

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

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

Mahaphanit, W. (December 2020). Computations in information-seeking and decision-making in Obsessive-Compulsive Disorder. Learning, Memory, & Decision Lab Meeting (PI: Matt Nassar), 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. (September 2024). Shared experiences increase social connection. Presented at the OppNet Social Connectedness and Isolation (SCI) grantee meeting, NIH, Rockville, MD.

Mahaphanit, W., Welker, C., Schmidt, H., Chang, L.J., & Hawkins, R.D. (August 2024). How does shared reality generalize? Presented at the 7th annual conference on Cognitive Computational Neuroscience (CCN), MIT, Cambridge, MA.

Kang, J., **Mahaphanit, W.**, Provenza, N., Nassar, M., Allam, A., Bechtold, R., Diab, N., Rajesh, S., Reddy S., Reyes, G., Dastin-van Rijn, E., Gandhi, A., Hirani, S., Banks, G., Dang, H., Avendano-Ortega, M., McKay, S., Borton, D., Frank, M.J., Storch, E., Herron, J., Goodman, W., Hayden, B., & Sheth, S. (June 2024). The effect of adaptive deep brain stimulation for obsessive-compulsive disorder in cognitive self-control under uncertainty. Presented at the American Society for Stereotactic & Functional Neurosurgery (ASSFN), Nashville, TN.

Mahaphanit, W., Hawkins, R.D., Phillips, J.S., & Chang, L.J. (April 2024). Learning to communicate a shared wavelength facilitates social connection. Presented at the Social & Affective Neuroscience (SANS) Society, Toronto, CA.

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

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

Mahaphanit, W. & Chang, L.J. (April 2023). Are shared experiences blind? Presented at the Social & Affective Neuroscience (SANS) Society, 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 Multidisciplinary 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 Initiative Investigators Meeting, Washington, D.C.

AWARDS & HONORS

Neukom Travel Award \$1,000 Dartmouth College	July 2025
Diversity & Inclusion Conference Award \$1,000 Cognitive Science Society	July 2024
Neukom Travel Award \$1,000 Dartmouth College	July 2024
Neukom Travel Award \$1,000 Dartmouth College	April 2023
Honorable Mention NSF Graduate Research Fellowship (GRFP)	April 2022
Inductee Sigma Xi	May 2018
Deep Learning Datathon 1st Place Brown University	January 2018
National College Match Finalist QuestBridge	2014
College Prep Scholar QuestBridge	2013

FELLOWSHIPS & SCHOLARSHIPS

Undergraduate Teaching & Research Award \$3,500 Brown University	Summer 2017
Undergraduate Teaching & Research Award \$1,000 Brown University	Spring 2016
Sorensen Family Chancellor's Scholarship Brown University	2015 - 2017
Junior Volunteer Endowment Scholarship \$2,000 Maine Medical Center	Spring 2014

SCIENTIFIC & COMMUNITY OUTREACH

PBS NOVA Episode: Who's in Control? Software Engineer for Featured Trust Game & fMRI Operator	May 2023
Svelte Radio Episode: Svelte in Research at Dartmouth with Wasita & Eshin Podcast Guest	April 2023

Women in Network Science (WiNS) Society Site Maintainer Website Working Group	2022 - Present
Info Theory Book Content Contributor & Site Maintainer	2022 - Present
Intro to fMRI at Dartmouth Content Contributor & Site Maintainer	2021 - 2023
Project SHORT Pre-Grad Mentor	2020 - 2022
Honeycomb Contributing Software Engineer	2019 - 2021
Rhode Island Brain Week Booth Organizer	2018 - 2020
Rhode Island Brain Week Booth Volunteer	2017 - 2018

RESEARCH TRAINING

Methods in Neuroscience at Dartmouth (MIND) Summer School Dartmouth College	2023
Computational Neuroscience Neuromatcha Academy (NMA)	2021
Carney Computational Modeling Workshop Brown University	2018

PROFESSIONAL & DEPRTEMENTAL SERVICE

Social Lab (SLAB) Talk Series Co-Organizer Dartmouth College PBS	2021 - 2024
Consortium for Interacting Minds (CIM) Talk Series Co-Organizer Dartmouth College PBS	2021 - 2024
Teaching Assistant Repository Creation & Organization Committee Dartmouth College PBS	2022 - 2023
Meeting Harmonization Committee Dartmouth College PBS	2021 - 2023
Transitioning from Intro to Programming to Career in Computation Alumni Panelist Brown University CLPS	2021

Managing Minds (Lab Manager Peer Mentoring Group) | Founder & Organizer 2019 - 2021
Brown University | CLPS & Carney Institute

Cognitive Neuroscience DUG Alumni Career Panelist 2018
Brown University | CLPS