

SAMER A. NOUR EDDINE, MD, PHD

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🌐 samer-nouredine

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ACADEMIC APPOINTMENTS

University of Maryland, College Park

Postdoctoral Fellow, Maryland Language Science Center

June 2025 - present

Tufts University

Postdoctoral Scholar, Department of Psychology

June 2024 - May 2025

EDUCATION

Tufts University

Ph.D. in Cognitive Science & Psychology

2021 - 2024

Dissertation: "A Predictive Coding Account of Lexico-semantic Processing"

Advisor: Gina Kuperberg

M.S. in Psychology

2018-2021

Advisor: Gina Kuperberg

American University of Beirut

Doctor of Medicine (M.D.)

2014-2018

B.S. in Biology (high distinction)

2010-2014

Minors: Philosophy; Psychology; Cognitive Sciences

PUBLICATIONS

Sharpe, V., Ford, S., **Nour Eddine S.**, Wang L., Palaniyappan, L., Kuperberg, G. (in press). GPT reveals selective impairments in global versus local context use in speech among treatment-naïve patients with positive thought disorder. *Biological Psychiatry*

Nour Eddine, S.*, Wang L.*, Brothers T., Jensen O., Kuperberg G. (2025), Predictive coding explains the dynamics of neural activity within the left ventromedial temporal lobe during reading comprehension. *NeuroImage* (* Equal contribution; [paper](#), [code](#))

Nour Eddine, S., Brothers, T., Wang, L., Spratling, M., Kuperberg, G. (2024), A predictive coding model of the N400. *Cognition*, 246, 1-24. ([paper](#), [code](#))

Börgers, C., **Nour Eddine, S.** (2023), Variations on the two-child problem. *Mathematical Intelligencer*, 1-6. ([paper](#))

Nour Eddine, S., Brothers, T., Kuperberg, G. (2022), The N400 in silico: A review of computational models. *Psychology of Learning and Motivation*, 75, 123-206. ([paper](#))

El Hechi, M., **Nour Eddine, S.**, Maurer, L., Kaafarani, H. (2021). Leveraging interpretable machine learning algorithms to predict postoperative patient outcomes on mobile devices. *Surgery*, 169(4), 750-754. ([paper](#))

El Hechi, M., **Nour Eddine, S.**, Kaafarani, H. (2021). Preoperative Risk Assessment. In *Artificial Intelligence In Surgery*. McGraw Hill

MANUSCRIPTS UNDER REVIEW AND IN PREPARATION

Nour Eddine, S., Brothers, T., Wang, L., Kuperberg, G. (in preparation), A predictive coding account of lexico-semantic processing.

Nour Eddine, S., Brothers, T., Hansen, T., Kuperberg, G. (in preparation), Walking the fine-LINE: Form priming dissociates N₄₀₀ attenuation and behavioral facilitation in a predictive coding framework.

PRESENTATIONS

CONFERENCE POSTER PRESENTATIONS

Dynamic Duo: Insights from a Dual-Unit
Predictive Coding Model of Lexico-Semantic Processing
Cognitive Neuroscience Society 2025

Contextual Facilitation in Language Processing: Insights from a
Predictive Coding Framework
Society for the Neurobiology of Language 2023

Divide & Concur: A Predictive Coding Account of the N₄₀₀,
Society for the Neurobiology of Language 2021

INVITED ACADEMIC TALKS

Language Science Lunch Talk, University of Maryland 2025
Cognitive Brown Bag Series, Tufts University 2024
Language and Cognition Series, Harvard University 2024
Computational Psycholinguistics Lab, M.I.T. 2023
Neuronal Oscillations Research Group, University of Birmingham 2022

TEACHING EXPERIENCE

Teaching Assistant, Tufts University

Advanced Engineering Psychology (PSY 130)	Fall 2023
Intro to Engineering Psychology (PSY 53)	Spring 2023
Intro to Linguistics (PSY 64)	Fall 2022
Experimental Psychology (PSY 32)	Spring 2021
Cognitive Psychology (PSY 28)	Fall 2020
Experimental Psychology (PSY 32)	Spring 2020
Intro to Engineering Psychology (PSY 53)	Fall 2019
Statistics for the Behavioral Sciences (PSY 31)	Spring 2019

Guest Lecture, Wellesley College

Predictive Mechanisms in Language, Cognitive Neuroscience of Communication 2024

Guest Lectures, Tufts University

Electroencephalography (x4), Intro to Engineering Psychology	2019, 2023, 2024, 2025
Semantics, Intro to Linguistics	2022

AWARDS & FELLOWSHIPS

Post-doctoral Fellow Award, Cognitive Neuroscience Society	January 2025
Nominated for Outstanding Academic Scholarship Award, Tufts	March 2024
Deborah Greenwald Fellowship, Tufts	April 2022
Innovations in Psychological Science Award, Tufts	April 2022
Graduate Student Abstract Merit Award, Society for the Neurobiology of Language	October 2021
Martin Paczynski Fellowship, Tufts	April 2021
Nominated for Google PhD Fellowship by Tufts	September 2020
Graduate Research Excellence at Tufts (GREAT) Fellowship, Tufts	May 2019
Jeffrey Stibel Fellowship, Tufts	August 2019
Jeffrey Stibel Fellowship, Tufts	November 2018

PROFESSIONAL AFFILIATIONS

Society for the Neurobiology of Language
Cognitive Neuroscience Society

SERVICE

Outreach

Committee Member, Tufts Graduate Education Committee

2019 - 2024

Peer Review

Language, Cognition & Neuroscience

Creativity Research Journal

SKILLS

Coding

Python, MATLAB, R

Languages

English (full professional proficiency), Arabic (native)

Other

LaTeX

CODING PROJECTS

GPT-2 For Psycholinguistic Applications. Implemented method to extract estimates of word predictability from a large language model. Used these estimates to compare speech in schizophrenia patients versus healthy controls. ([code](#))

Binary multi-dimensional scaling. Implemented a representation-learning algorithm from a technical description in a research paper. ([code](#))