# Fatima Jebahi

Department of Speech, Language, and Hearing Sciences College of Science The University of Arizona Tucson, AZ 85719 Website: fatimajebahi.com Email: fjebahi@arizona.edu Phone: (512) 660-8835

(expected) August 2025

# EDUCATION

#### Ph.D. in Speech, Language, and Hearing Sciences

The University of Arizona, Tucson, AZ, USA

- Minor in Cognitive Science
- Dissertation: Understanding word retrieval in logopenic variant primary progressive aphasia: Examination of psycholinguistic properties across tasks
- Advisor: Aneta Kielar, Ph.D.

#### M.S. in Communication Sciences and Disorders

East Carolina University, Greenville, NC, USA

- Thesis: Factors correlated with communication confidence in persons with aphasia: A synthetic cohort analysis
- Advisor: Charles Ellis, Ph.D., CCC-SLP

#### B.S. in Speech Therapy

Lebanese University, Fanar, Lebanon

# **RESEARCH INTERESTS**

# **Overarching Goal:**

To advance the understanding of psycholinguistic, cognitive, social, and structural mechanisms underlying language performance and decline in neurogenic language disorders, with a particular focus on primary progressive aphasia and post-stroke aphasia, to inform equitable evidence-based interventions.

# **Specializations:**

- Conducting behavioral analyses of language performance in individuals with neurogenic language disorders
- Developing and examining evidence-based treatment approaches for individuals with neurogenic language disorders
- Applying transcranial direct current stimulation (tDCS) with language intervention in individuals with neurogenic language disorders
- Applying statistical modeling techniques, including structural models, to examine cognitive-linguistic relationships
- Utilizing structural magnetic resonance imaging (MRI) for voxel-based morphometry (VBM) to analyze brain-behavior relationships in neurogenic language disorders
- Running and analyzing electroencephalographic (EEG) data to study neurocognitive mechanisms of language processing

May 2021

Jun. 2018

# PEER-REVIEWED PUBLICATIONS

# **Journal Articles:**

- [J11] Jebahi F., Lai, V.T., & Kielar, A. (2024). Psycholinguistic predictors of naming accuracy and decline in bilingual logopenic primary progressive aphasia: A cross-linguistic case study. *Neurocase*, 30(5), 181–188. https://doi.org/10.1080/13554794.2024.2436165.
- [J10] Jebahi F., & Kielar, A. (2024). The relationship between semantics, phonology, and naming performance in aphasia: A structural equation modeling approach. *Cognitive Neuropsychology*, 41(3–4), 113–128. https://doi.org/10.1080/02643294.2024.2373842.
- [J9] Jebahi, F., Nickels, K.V., & Kielar, A. (2024). Patterns of performance on the animal fluency task in logopenic variant of primary progressive aphasia: A reflection of phonological and semantic skills. *Journal of Communication Disorders*, 108, 106405. https://doi.org/10.1016/j.jcomdis.2024.106405.
- [J8] Jebahi, F., Nickels, K.V., & Kielar, A. (2024). Predicting confrontation naming in the logopenic variant of primary progressive aphasia. *Aphasiology*, *38*(4), 635–666. https://doi.org/10.1080/02687038.2023.2221998.
- [J7] Summaka, M., Nasser, Z., Hannoun, S., Daoud, R., Zein, H., Al-Thalaya, Z., Hamadeh, Z., Koubaisy, N., Jebahi, F., Naim, I., & Harati, H. (2024). The Radboud dysarthria assessment: validity and reliability of the Arabic version. *Disability and Rehabilitation*, 46(21), 5104–5113. https://doi.org/10.1080/09638288.2023.2297809.
- [J6] Summaka, M., Jebahi, F., Al-Thalaya, Z., Assaf, S., Al-Kammouni, Z., Al Zein, H., Haidar, R., Kresht, J., Hassan F.Z., Matar, W., Kawtharani, H., & Kassir, H. (2024). Verbal fluency in Lebanese children: Preliminary normative data, sociodemographic determinants, and patterns of clustering and switching. *Applied Neuropsychology: Child*, 13(3), 202–214. https://doi.org/10.1080/21622965.2022.2150551.
- [J5] Shah-Basak, P., Boukrina, O., Li, X.R., Jebahi, F., & Kielar, A. (2023). Targeted neurorehabilitation strategies in post-stroke aphasia. *Restorative Neurology and Neuroscience*, 41(3–4), 129–191. https://doi.org/10.3233/RNN-231344.
- [J4] Nickels, K.V., Beeson, P.M., Rising, K.L., Jebahi, F., & Kielar, A. (2023). Positive changes to written language following phonological treatment in logopenic variant primary progressive aphasia: Case report. *Frontiers in Human Neuroscience*, 16, 919. https://doi.org/10.3389/fnhum.2022.1006350.
- [J3] Jebahi, F., Abou Jaoude, R., Daaboul, H., El Achkar, R., & Jacobs, M. M. (2023). Preliminary normative data for 12 categories using semantic verbal fluency: The role of animacy. *Applied Neuropsychology: Adult, 30*(6), 680–685. https://doi.org/10.1080/23279095.2021.1971981.
- [J2] Jebahi, F., Abou Jaoude, R., & Ellis, C. (2022). Semantic verbal fluency task: The effects of age, educational level, and sex in Lebanese-speaking adults. *Applied Neuropsychology: Adult, 29*(5), 936–940. https://doi.org/10.1080/23279095.2020.1821031.
- [J1] Jebahi, F., Sharma, S., Bloss, J.E., & Wright, H.H. (2021). Effects of tamoxifen on cognition and language in women with breast cancer: A systematic search and a scoping review. *Psycho-Oncology*, 30(8), 1262-1277. https://doi.org/10.1002/pon.5696.

# **Book Chapter:**

[B1] Jacobs, M.M., Jebahi, F., & Ellis, C. (2021). The determinants of health: Social, structural, and political contributions to health-related outcomes. In *Critical Perspectives on Social Justice in Speech-Language Pathology* (pp. 39–58). IGI Global. https://doi.org/10.4018/978-1-7998-7134-7.ch003.

# PRESENTATIONS

- [P17] Jebahi, F., Sharma, S., & Rothermich, K. (2024, December). Evaluating individual and group therapy in aphasia: A psychosocial perspective. Poster presentation at the annual American Speech-Language-Hearing Convention, Seattle, WA.
- [P16] Sharma, S., & **Jebahi**, **F.** (2024, December). The impact of handedness on aphasia severity: Insights from AphasiaBank. Poster presentation at the annual American Speech-Language-Hearing Convention, Seattle, WA.
- [P15] Jebahi, F., Lai, V. T., & Kielar, A. (2024, October). Longitudinal investigation of naming accuracy in a case of bilingual logopenic primary progressive aphasia: Contribution of psycholinguistic properties. Poster presentation at the annual Meeting of the Academy of Aphasia, Nara, Japan.
- [P14] **Jebahi, F.**, & Kielar, A. (2023, October). The contribution of semantics and phonology to naming error types in aphasia. Poster presentation at the annual Meeting of the Academy of Aphasia, Reading, England.
- [P13] Nickels, K.V., Beeson, P.M., Rising, K.L., Jebahi, F., & Kielar, A. (2023, October). Treatment outcomes following phonological intervention in logopenic and nonfluent/agrammatic variant primary progressive aphasia: Results from a double-blind, sham-controlled, crossover trial. Platform presentation at the annual Meeting of the Academy of Aphasia, Reading, England.
- [P12] Jebahi, F., Nickels, K.V. Frazier, N.J., & Kielar, A. (2023, September). The contribution of semantic and phonological abilities to category fluency performance patterns in logopenic variant of primary progressive aphasia. Poster presentation at the annual Arizona Alzheimer's Consortium Scientific Conference, Tempe, AZ.
- [P11] Nickels, K.V., Beeson, P.M., Jebahi, F., Frazier, N.J., & Kielar, A. (2023, September). Treatment outcomes in primary progressive aphasia after phonological treatment with tDCS. Poster presentation at the annual Arizona Alzheimer's Consortium Scientific Conference, Tempe, AZ.
- [P10] Goehring, G. E., Jebahi, F., & Kielar A. (2023, April). Predictors of verbal fluency performance in perisylvian aphasia. Poster presentation at the Franke Honors College Annual Research Symposium, University of Arizona, Tucson, AZ.
- [P9] Slenkovich, E., Nickels, K.V., Jebahi, F., Frazier, N.J., & Kielar, A. (2023, April). The methods, neuromechanism, and research applications of tDCS. Poster presentation at the Chemistry and Biochemistry Poster Fair, University of Arizona, Tucson, AZ.
- [P8] Jebahi, F., Nickels, K.V., & Kielar, A. (2022, November). Generative naming in the logopenic variant of primary progressive aphasia: The role of psycholinguistic properties. Poster presentation at the annual American Speech-Language-Hearing Convention, New Orleans, LA.
- [P7] Nickels., K.V., Rising, K.L., Beeson, P.M., Jebahi, F., Sachs., A., & Kielar, A. (2022, November). Examining the effect of a phonological intervention on written narratives in individuals with primary progressive aphasia. Platform presentation at the annual American Speech-Language-Hearing Convention, New Orleans, LA
- [P6] Nickels, K.V., Beeson, P.M., Rising, K.L., Jebahi, F., Kielar, A. (2022, October). Phonological treatment outcomes in nonfluent/agrammatic variant primary progressive aphasia: A case study. Poster presentation at the annual Meeting of the Academy of Aphasia, Philadelphia, PA.
- [P5] Jebahi, F., Nickels, K.V., Frazier N.J., & Kielar, A. (2022, October). Clustering and switching on verbal fluency in logopenic variant of primary progressive aphasia. Poster presentation at the annual Society for the Neurobiology of Language Meeting. Philadelphia, PA.

- [P4] Nickels, K.V., Beeson, P.M., Rising, K.L., Jebahi, F., Frazier, N.J., & Kielar, A. (2022, September). Treatment for phonological text agraphia in logopenic variant of primary progressive aphasia: a heterogenous case series. Poster presentation at the annual Arizona Alzheimer's Consortium. Tempe, AZ.
- [P3] Jebahi, F., Nickels, K.V., & Kielar, A. (2022, May). Psycholinguistic determinants of naming in logopenic variant of primary progressive aphasia. Poster presentation at the annual Clinical Aphasiology Conference. Wrightsville Beach, NC.
- [P2] Jebahi, F., Sharma, S., & Wright, H.H. (2021, February). Effects of tamoxifen on cognition and language in women with breast cancer: A scoping review. Poster presentation at the International Neuropsychological Society (Virtual).
- [P1] Jebahi, F., Briley, P.M., & Ellis, C. (2020, November). 12088: Semantic verbal fluency task: Categorical normative data and effects of sociodemographic variables in Lebanese adults. Proposal accepted at the Annual Convention of the American Speech-Language-Hearing Association (Convention canceled).

# SCHOLARSHIPS, FELLOWSHIPS, & AWARDS

<b>New Century Scholars Doctoral Scholarship</b> , American Speech-Language-Hearing Foundation Awarded a \$10,000 scholarship designed to support doctoral candidates committed to working in higher education	2024
Galileo Circle Scholarship, The University Arizona202Awarded a total of \$6,500 for demonstrating exceptional potential in the field of cognitive science202	2, 2023, 2024
<b>Academy of Aphasia Young Investigator Travel Fellowship</b> , National Institute on Deafness and Other Communication Disorders (NIDCD) Awarded two fellowships to attend and present at the 61 <sup>st</sup> and 62 <sup>nd</sup> Annual Meetings of the Academy of Aphasia	2023, 2024
<b>College of Science Graduate Excellence Award in Scholarship</b> , The University of Arizona Recognized for outstanding research publications, presentations at meetings, and scholarship within the department	2024
<b>Research Symposium in Clinical Aphasiology Fellowship</b> , National Institute on Deafness and Other Communication Disorders (NIDCD) Awarded a fellowship to attend and present at the 51 <sup>st</sup> Clinical Aphasiology Conference	2022
<b>University Fellows Award</b> , The University of Arizona Awarded a \$35,000 fellowship offered to The University of Arizona's highest-ranked incoming graduate students	2021-2022
<b>Fulbright Scholarship</b> , Fulbright Association Awarded the Fulbright Scholarship to pursue a Master of Science degree at East Carolina University, Greenville, NC	2019–2021

# **RESEARCH & TRAVEL GRANTS**

Graduate and Professional Student Council Travel Grant, The University of Arizona	2023
Awarded a grant to attend and present at the 2022 American Speech-Language-Hearing Association (ASHA) Conventi	on
<b>Speech, Language, and Hearing Sciences Travel Grant</b> , The University of Arizona Awarded two grants to attend and present at the 14 <sup>th</sup> Annual Meeting of the Society for the Neurobiology of Language and the 61 <sup>st</sup> Annual Meeting of the Academy of Aphasia	2022, 2023
<b>Graduate and Professional Student Council Research and Project Grant</b> , The University of Arizona Received a \$1,350 research grant to collect electroencephalographic data from participants with primary progressive approximately a statement of the statement of t	2021 phasia

# **RESEARCH EXPERIENCE**

#### **Graduate Student Researcher**

Language and Neuroimaging Research Lab, The University of Arizona

- Director: Aneta Kielar, Ph.D.
- Designing and conducting research aimed at examining psycholinguistic properties that affect word retrieval in primary progressive aphasia
- Applying transcranial direct current stimulation (tDCS) while language treatment is concurrently given to adults with primary progressive aphasia
- Conducting word retrieval treatment research to adults with primary progressive aphasia
- Administering language and cognitive assessments to neurotypical adults and adults with post-stroke aphasia or primary progressive aphasia
- Managing and analyzing data from neurotypical adults and adults with primary progressive and post-stroke aphasias
- Assisting in recruiting neurotypical adults and adults with post-stroke aphasia and primary progressive aphasia to participate in investigative and treatment research
- Mentoring undergraduate research assistants on conducting, managing, and analyzing clinical research

This work resulted in three first-author journal publications (published in Aphasiology, Journal of Communication Disorders, and Cognitive Neuropsychology) and one co-authored journal publication (published in Frontiers of Human Neuroscience).

#### Graduate Student Researcher

Cognitive Neuroscience of Language Lab, The University of Arizona

- Director: Vicky T. Lai, Ph.D.
- Conducted a retrospective study that examined patterns of word retrieval accuracy and deterioration in a case of bilingual logopenic primary progressive aphasia (in collaboration with the Language and Neuroimaging Research Lab; Aneta Kielar, Ph.D.)

#### **Graduate Student Researcher**

Communication Equity and Outcomes Lab, East Carolina University

- Director: Charles Ellis, Ph.D., CCC-SLP
- Completed a retrospective study examining the factors that impact communication confidence and quality of life in post-stroke aphasia
- Contributed to the conceptualization, research, and writing of a book chapter on social, political, and structural determinants of health in the field of communication sciences and disorders, highlighting the impact of health inequities on communication outcomes

#### **Graduate Student Researcher**

Aging and Adult Language Disorders Lab, East Carolina University

- Director: Heather Harris Wright, Ph.D., CCC-SLP
- Completed a systematic search and a scoping review on the effects of tamoxifen, a hormonal treatment for breast cancer, on language and cognition

Aug. 2021-Present

Aug. 2019–May 2021

Aug. 2022-Dec. 2022

May 2020-Aug. 2020

# **ONGOING COLLABORATIONS**

- [5] Maria Luisa Gorno-Tempini, M.D., Ph.D. (University of California, San Francisco) and Jet M.J. Vonk, Ph.D. (University of California, San Francisco) Topic: Examining clustering and switching on verbal fluency as predictors of primary progressive aphasia variant
- [4] Vicky T. Lai, Ph.D. (The University of Arizona)
  Topic: Investigating psycholinguistic predictors of naming accuracy and decline in bilingual logopenic primary progressive aphasia
- [3] **Marwa Summaka**, Ph.D. (Lebanese University, Lebanon) and **Hiba Kassir**, Ph.D (Islamic University of Lebanon, Lebanon)

Topic: Developing normative data and validating assessment tools for Arabic-speaking populations

- [2] **Saryu Sharma**, Ph.D. (Idaho State University, Pocatello) and **Kathrin Rothermich**, Ph.D. (East Carolina Univerity) Topic: *Evaluating the efficacy of individual and group therapy on psychosocial well-being in post-stroke aphasia*
- [1] Saryu Sharma, Ph.D. (Idaho State University, Pocatello)
  Topic: *Examining the impact of handedness on post-stroke aphasia severity using data from AphasiaBank*

# **TEACHING EXPERIENCE**

#### Teaching Assistant, SLHS 255 Hearing, Health, and Society

The University of Arizona

- Guest lectured on the role of hearing in communication, psychosocial impacts of hearing loss, and hearing health care access, focusing on the intersection of hearing and communication sciences.
- Graded quizzes, exams, and student papers, and provided constructive feedback

#### Teaching Assistant, SLHS 362 Neurobiology of Communication

The University of Arizona

- Guest lectured on topics of brain connectivity and the development of the nervous system
- Graded APA-style papers and student portfolios, providing detailed feedback to support skill development

Guest Lecturer, SPA 6564 Seminar in Aging, Cognition, and Communication	Fall 2022, 2023
The University of South Florida	

• Invited to give a lecture on "Neurogenic Language Disorders: Post-stroke and Primary Progressive Aphasia"

#### **Instructor**, *College of Science Discovery*

The University of Arizona

- Designed and taught a three-week course to introduce incoming undecided undergraduate students to all schools and departments within the College of Science
- Created and facilitated engaging class sessions to explore interdisciplinary opportunities and foster academic curiosity within science

#### Guest Lecturer, CMSD 4110 Speech Disorders

The University of Georgia

• Invited to give a lecture on "Acquired Neurogenic Language and Speech Disorders: An Introduction"

Spring 2024, 2025

Fall 2023, 2024

Summer 2023

Spring 2022

# CERTIFICATIONS

#### Graduate Certificate in Neuroimaging Methods

The University of Arizona

Completed 12 credits focused on state-of-the-art tools to design and implement neuroimaging experiments, including Neuroimaging Theory, Methods and Applications, Computing for Neuroimagers, and Computing for the Research Lab

#### Graduate Certificate in College Teaching

The University of Arizona

Completed 10 credits focused on knowledge and skills key for teaching effectively in college and adult learning settings, including Learner-Centered Teaching, Using Technology in Teaching, and College Teaching Practice

# **CLINICAL EXPERIENCE**

#### **Speech Therapist**

Saint Joseph Private Clinics, Damour, Lebanon

- Provided diagnostic speech-language evaluations for adults with post-stroke aphasia, traumatic brain injuries, or dementia caused by neurodegenerative diseases
- Designed and implemented treatment plans for adults with speech, and/or language impairments
- Evaluated progress and planned reevaluation of patients

# MENTORING EXPERIENCE

- [S3] Noah Frazier, Undergraduate student, The University of Arizona Spring 2022-Present Helped Noah with data organization and management, as well as preparing his first academic poster, providing guidance on data presentation
- [S2] Elle Goehring, Undergraduate student, The University of Arizona Fall 2022–Spring 2023 Guided Elle through data organization, analysis, and thesis write-up for her research on verbal fluency in post-stroke aphasia
- [S1] Libby Egleson, Undergraduate student, The University of Arizona Assisted Libby by providing feedback on her graduate school application

# **ACADEMIC & COMMUNITY SERVICE**

# **Academic Service:**

#### Ad Hoc Reviewer

- Reviewed journal articles for Aphasiology, American Journal of Speech-Language Pathology, European Journal of Neuroscience, and Applied Neuropsychology: Adults
- Reviewed travel and research grants for the Graduate and Professional Student Council at The University of Arizona

May 2024

May 2024

Jun. 2018-Aug. 2019

Spring 2023

2021-Present

#### Panelist

• Served as a panelist on "Tips for Success" for SLHS 649: Survival Skills and Ethics, The University of Arizona

# **Educational Outreach:**

# Mentor

Speech - Language and Hearing Cats of Color (SHCC) at The University of Arizona

- Mentored students by providing guidance on academic development and career pathways within the field of speech, language, and hearing sciences
- Facilitated discussions focused on cultural competence in speech, language, and hearing sciences

# **Professional Memberships:**

- American Speech–Language–Hearing Association
- Academy of Aphasia
- Society for the Neurobiology of Language

# **Professional Training:**

Magnetic Resonance Imaging (MRI) Safety, The University of Arizona	2021
Understanding Alzheimer's and Dementia, Alzheimer's Association	2020
Primary Care and Traumatic Brain Injury, The Greensboro Area Health Education Center	2020

2023