

Holly A. Zaharchuk

PHD CANDIDATE (SHE/HER)

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Research interests

My research interests lie at the intersection of cognitive psychology and sociolinguistics. I use neuropsychological (EEG) and behavioral methods to understand how linguistic, cognitive, and social factors interact during language processing. My particular areas of study include phonetic and syntactic variation, bilingual code-switching, and network models of language.

Education

The Pennsylvania State University

University Park, Pennsylvania

PH.D., PSYCHOLOGY AND LANGUAGE SCIENCE, SPECIALIZATION IN COGNITIVE AND AFFECTIVE NEUROSCIENCE

2018 - present

- Advisor: Dr. Janet G. van Hell
- Dissertation: *Cross-language transfer in voice onset time: A window into perceptual adaptation in brain and behavior*

The Pennsylvania State University

University Park, Pennsylvania

M.S., PSYCHOLOGY

2018 - 2020

- Advisor: Dr. Janet G. van Hell
- Master's thesis: *We "might could" revisit syntactic processing: Studying dialectal variation with event-related potentials*

The University of Chicago

Chicago, Illinois

B.A., PSYCHOLOGY, MINOR IN LINGUISTICS

2011 - 2015

- Advisor: Dr. Daniel Casasanto
- Honors thesis: *Does linguistic experience change mental representations of pitch?*

Honors and awards

Doctoral Dissertation Research Improvement Grant (Ling-DDRI)

The Pennsylvania State University

NSF GRANT SUPPORTING DOCTORAL RESEARCH ON HUMAN LANGUAGE

Feb 2023 - Dec 2023

Partnerships for International Research and Education Fellowship (PIRE)

The Pennsylvania State University

NSF-FUNDED FELLOWSHIP TO CONDUCT FIELD RESEARCH IN COLOMBIA

May 2022 - Jun 2022

Adele Miccio Memorial Travel Award

The Pennsylvania State University

TRAVEL AWARD TO DISCUSS DISSERTATION AND CAREER PLANS WITH DR. EMILY MYERS (UConn)

Dec 2021

University Graduate Fellowship

The Pennsylvania State University

FIVE-YEAR FELLOWSHIP FOR RESEARCH DOCTORAL STUDENTS

Aug 2018 - present

University Scholar Award

The University of Chicago

FOUR-YEAR MERIT SCHOLARSHIP

Sep 2011 - Jun 2015

Publications

Zaharchuk, H. A., & Karuza, E. A. (2021). Multilayer networks: An untapped tool for understanding bilingual neurocognition. *Brain and Language*, 220, 104977.

Zaharchuk, H. A., Shevlin, A., & Van Hell, J. G. (2021). Are our brains more prescriptive than our mouths? Experience with dialectal variation in syntax differentially impacts ERPs and behavior. *Brain and Language*, 218, 104949.

Lucero, C., **Zaharchuk, H.**, & Casasanto, D. (2014). Beat gestures facilitate speech production. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36th Annual Meeting of the Cognitive Science Society*. Red Hook, NY: Curran Associates.

Presentations

Zaharchuk, H. A., & Van Hell, J. G. (2023, October). Investigating the roles of acoustic-phonetic and lexico-semantic processing in resolving perceptual ambiguity in spanish-accented english [Poster session]. 15th Annual Meeting of

the Society for the Neurobiology of Language (SNL), Marseille, France.

Zaharchuk, H. A., Lipski, J., & Van Hell, J. G. (2023, August). Mi casa es tu posá: Exploring the bilingual mental lexicon in speakers of Spanish and Palenquero [Poster session]. Architectures and Mechanisms for Language Processing Conference (AMLaP 29), Donostia-San Sebastián, Spain.

Zaharchuk, H. A., Medina, V., Paterno, S., Viswanathan, N., & Van Hell, J. G. (2023, March). Sentential context impacts bilingual speech-in-speech recognition [Poster session]. 36th Annual Conference on Human Sentence Processing (HSP), Pittsburgh, Pennsylvania.

Zaharchuk, H. A., Walker, A., & Van Hell, J. G. (2023, March). Tracking the time-course of cross-dialect comprehension with ERPs [Oral and poster sessions]. 30th Annual Meeting of the Cognitive Neuroscience Society (CNS), San Francisco, California.

Zaharchuk, H. A., Shevlin, A., & Van Hell, J. G. (2022, November). Experiencia con variación dialéctica en sintaxis afecta el procesamiento de lenguaje [Plenary session]. III Congreso Paraguayo de Lingüística Aplicada (CONPLA), Asunción, Paraguay.

Walker, A., **Zaharchuk, H. A.**, Fernandez, C. B., & Van Hell, J. G. (2021, August). The role of dialect expectation on lexical processing: EEG evidence [Oral session]. 5th Variation and Language Processing Conference (VALP5), Copenhagen, Denmark.

Zaharchuk, H. A., Shevlin, A., & Van Hell, J. G. (2020, May). We “might could” revisit syntactic processing: Studying dialectal variation with event-related potentials [Poster session]. 27th Annual Meeting of the Cognitive Neuroscience Society (CNS), Boston, Massachusetts.

Zaharchuk, H. A., Shevlin, A., & Van Hell, J. G. (2019, November). Auditory comprehension of double versus single modal constructions in Mainstream American English listeners [Poster session]. 60th Annual Meeting of the Psychonomic Society, Montréal, Québec, Canada.

Zaharchuk, H. A. (2015, June). Does linguistic experience change mental representations of pitch? [Poster session]. University of Chicago Undergraduate Research Symposium, Chicago, Illinois.

Invited talks

- Processing Variation (ProVAR) group led by Dr. Marije Soto, Federal University of Rio de Janeiro
- Psycholinguistic fieldwork guest lecture for Dr. Colleen Balukas, University at Buffalo (SUNY)

Research experience

Bilingualism and Language Development Lab

University Park, Pennsylvania

GRADUATE STUDENT

Aug 2018 - present

- Principal investigator: Dr. Janet G. van Hell
- Research areas: language processing and dialectal variation
- Responsibilities: design, implement, and run EEG and behavioral experiments with E-Prime; process and analyze experimental data with R and MATLAB; mentor undergraduate research assistants; maintain lab equipment and supplies

Experience and Cognition Lab

Chicago, Illinois

UNDERGRADUATE RESEARCH ASSISTANT

Sep 2013 - Jun 2015

- Principal investigator: Dr. Daniel Casasanto
- Research areas: embodied cognition and linguistic relativity
- Responsibilities: train, run, and debrief participants; code and analyze experimental data with ELAN and R; create new experiments with Python

Professional experience

Consumer Financial Protection Bureau

Washington, District of Columbia

FINANCIAL ANALYST

Jul 2017 - Jul 2018

- Collaborated with the Consumer Education and Engagement Division to write a [spotlight report on language access](#) for limited English proficient consumers as a member of the Language Access Task Force
- Researched debt collection and debt relief, particularly in the credit card and student loan markets, for the Consumer Lending, Reporting, and Collections Markets team

Consumer Financial Protection Bureau

Washington, District of Columbia

DIRECTOR'S FINANCIAL ANALYST

Jul 2015 - Jul 2017

- Supported the policy and research teams in the Office of Fair Lending and Equal Opportunity
- Performed business analytics, tracking, and reporting in the Supervision, Enforcement, and Fair Lending Front Office

Research Development Support (formerly Arete)

Chicago, Illinois

PROGRAM AND OPERATIONS ASSISTANT

Feb 2013 - Jun 2015

- Partnered with The University of Chicago research administration support faculty members pursuing complex research initiatives
- Provided program analysis, strategic planning, business metrics, and event support

Teaching experience

Psychology of language

The Pennsylvania State University

INSTRUCTOR

Jan 2024 - May 2024

Psychology of language

The Pennsylvania State University

TEACHING ASSISTANT

Jan 2021 - May 2021

- Instructor: Dr. Katharine Donnelly Adams
- Seminar course covering auditory speech perception, visual word recognition, language representation, sentence comprehension and production, and language acquisition across the lifespan
- Presented guest lecture on linguistic variation and the relation between production and comprehension

Basic research methods in psychology

The Pennsylvania State University

TEACHING ASSISTANT

Aug 2020 - Dec 2020

- Instructor: Dr. Nicholas Pearson
- Introduction to experimental design, analysis, and presentation
- Led weekly laboratory section to reinforce lecture concepts

What makes us human?

The Pennsylvania State University

TEACHING ASSISTANT

Jan 2020 - May 2020

- Instructor: Dr. Daniel Weiss
- Senior seminar in comparative psychology

Neurological bases of human behavior

The Pennsylvania State University

TEACHING ASSISTANT

Aug 2019 - Dec 2019

- Instructor: Dr. Stephen Wilson
- Introduction to neuroscience theories and methods
- Presented guest lecture on auditory system and neuroanatomy of language production and comprehension

Outreach

Bilingualism and Language Development Lab

University Park, Pennsylvania

THE BRAIN BUS COORDINATOR

Aug 2018 - present

- Maintain *The Brain Bus*, BILD's mobile neuroscience lab for field research and language science public engagement
- Participate in community outreach events, including as a volunteer judge at the Young Scholars of Western PA science fair

Center for Language Science

University Park, Pennsylvania

GRADUATE ASSISTANT

Jan 2021 - May 2021

- Created public repository for research on linguistic discrimination in collaboration with fellow graduate assistants
- Participated in ENVISION STEM career day for young women

Center for Language Science

University Park, Pennsylvania

GRADUATE ASSISTANT

Aug 2019 - Dec 2019

- Managed the Center's social media presence to engage the wider regional community in language science research
- Created and solicited content for the Winter/Spring 2020 Bilingualism Matters newsletter

Community service

Next Step Public Charter School

Washington, District of Columbia

MATHEMATICS TUTOR

Jan 2017 - Jul 2018

- Volunteered as a mathematics tutor with the bilingual GED and ESL program for immigrant and other at-risk youth
- Provided one-on-one assistance with practice problems and assignments once per week for 1-2 hours

Community Tax Aid

Washington, District of Columbia

VOLUNTEER TAX PREPARER

Jan 2016 - Apr 2018

- Volunteered as an IRS-certified advanced volunteer tax preparer with the Volunteer Income Tax Assistance (VITA) program, which offers free tax help to individuals who make \$54,000 or less, individuals with disabilities, and limited English speaking individuals who need assistance in preparing their own tax returns
- Provided tax preparation services once per week for 3-4 hours during tax season

Academic service

- Ad hoc reviewing
 - *Brain and Language*
 - *Cognitive, Affective, and Behavioral Neuroscience*
 - *Journal of Experimental Psychology: Learning, Memory, and Cognition*
 - *Scientific Reports*
- Workshops and tutorials
 - Leader: R Markdown for Graduate Students (2020), Creating HTML Reports with R Markdown (2020)
 - Assistant: R Bootcamp (2019) led by Dr. Rick Gilmore
- R Markdown for Psychology Graduate Students resource

Skills

- Natural languages: English, Spanish (B2/Intermediate)
- Programming languages: R, MATLAB, Python, SQL
- Software: E-Prime, Praat, Microsoft Suite, Adobe Suite
- Typesetting: R Markdown, \LaTeX

Affiliations

- Center for Language Science
- Cognitive Neuroscience Society
- Psychonomic Society
- Society for the Neurobiology of Language
- Women in Cognitive Science