

Holly A. Zaharchuk

POSTDOCTORAL RESEARCHER (SHE/HER)

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Research interests

How does the brain respond to linguistic variation? I use a combination of neural (EEG, fMRI, TMS) and behavioral (eye-tracking, manual response) methods to study the perception, representation, and processing of diverse speech signals. I am particularly interested in the effects of multilingual and multilectal experience on the language system.

Education

The Pennsylvania State University

University Park, Pennsylvania

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

2018 - 2024

- 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 FOR DOCTORAL RESEARCH ON HUMAN LANGUAGE (SBE-2234907)

Feb 2023 - Dec 2023

Partnerships for International Research and Education Fellowship (PIRE)

The Pennsylvania State University

NSF GRANT FOR INTERNATIONAL LANGUAGE RESEARCH (OISE-1545900)

May 2022 - Jun 2022

Adele Miccio Memorial Travel Award

The Pennsylvania State University

TRAVEL AWARD FOR PROFESSIONAL DEVELOPMENT

Dec 2021

University Graduate Fellowship

The Pennsylvania State University

COMPETITIVE FIVE-YEAR FELLOWSHIP FOR RESEARCH DOCTORAL STUDENTS (100 AWARDED PER YEAR UNIVERSITY-WIDE)

Aug 2018 - Aug 2024

University Scholar Award

The University of Chicago

FOUR-YEAR MERIT SCHOLARSHIP FOR UNDERGRADUATE STUDENTS

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.

Works in progress

Litcofsky, K., **Zaharchuk, H. A.**, & Van Hell, J. G. (2024). Cross-modality structural priming in dialogue is influenced by interlocutor accent [Manuscript submitted for publication]. *Journal of Neurolinguistics*.

Miller, A. R., Jończyk, R., **Zaharchuk, H. A.**, & Van Hell, J. G. (2024). Unlocking second language novel metaphor

processing: Behavioral and ERP insights from first and second-language English users [Manuscript submitted for publication]. *Psychophysiology*.

Zaharchuk, H. A., Medina, V., Paterno, S., Viswanathan, N., & Van Hell, J. G. (2024). Sentential context impacts bilingual speech-in-speech recognition [Manuscript in preparation].

Zaharchuk, H. A., & Van Hell, J. G. (2024). The effects of variability and similarity on generalization across spanish-accented english talkers [Manuscript in preparation].

Zaharchuk, H. A., Walker, A. J., Miller, A. R., Fernandez, C. B., & Van Hell, J. G. (2024). Anticipating challenges in lexical access: EEGs and cross-dialectal communication [Manuscript in preparation]. *Journal of Laboratory Phonology*.

Presentations

Zaharchuk, H. A., & Van Hell, J. G. (2024, November). The neurocognitive correlates of talker-specific adaptation to spanish-accented speech [Poster session]. 65th Annual Meeting of the Psychonomic Society, New York City, New York.

Walker, A., **Zaharchuk, H. A.**, Miller, A. R., & Van Hell, J. G. (2023, December). Your brain on accents: Profiles of event related potentials in cross-dialectal listening in the US english context [Poster session]. 185th Meeting of the Acoustical Society of America, Sydney, Australia.

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

Zaharchuk, H. A. (2023). Sociolinguistics in the lab and the field. Invited lecture, University at Buffalo, March 13.

Zaharchuk, H. A., Shevlin, A., & Van Hell, J. G. (2022). Are our brains more prescriptive than our mouths? Experience with dialectal variation in syntax differentially impacts ERPs and behavior. Invited lecture, Processing Variation (ProVAR), Federal University of Rio de Janeiro, February 14.

Employment history

Language and Brain Lab	<i>Storrs, Connecticut</i>
POSTDOCTORAL RESEARCHER	<i>Aug 2024 - present</i>
<ul style="list-style-type: none">Principal investigator: Dr. Emily B. MyersResearch areas: speech perception in young adult, older adult, and clinical populationsResponsibilities: design, implement, and analyze research projects investigating laterality, gradiency, and talker specificity in speech perception with fMRI, TMS, and eye-tracking (NIH R01: 5R01DC013064-09)	
Consumer Financial Protection Bureau	<i>Washington, District of Columbia</i>
FINANCIAL ANALYST	<i>Jul 2017 - Jul 2018</i>
<ul style="list-style-type: none">Collaborated with the Consumer Education and Engagement Division to write a <u>spotlight report on language access</u> for limited English proficient consumers as a member of the Language Access Task ForceResearched 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	<i>Washington, District of Columbia</i>
DIRECTOR'S FINANCIAL ANALYST	<i>Jul 2015 - Jul 2017</i>
<ul style="list-style-type: none">Supported the policy and research teams in the Office of Fair Lending and Equal OpportunityPerformed business analytics, tracking, and reporting in the Supervision, Enforcement, and Fair Lending Front Office	
Research Development Support (formerly Arete)	<i>Chicago, Illinois</i>
PROGRAM AND OPERATIONS ASSISTANT	<i>Feb 2013 - Jun 2015</i>
<ul style="list-style-type: none">Partnered with The University of Chicago research administration support faculty members pursuing complex research initiativesProvided program analysis, strategic planning, business metrics, and event support	
Experience and Cognition Lab	<i>Chicago, Illinois</i>
UNDERGRADUATE RESEARCH ASSISTANT	<i>Sep 2013 - Jun 2015</i>
<ul style="list-style-type: none">Principal investigator: Dr. Daniel CasasantoResearch areas: embodied cognition and linguistic relativityResponsibilities: collect, code, and analyze behavioral data	

Teaching experience

Psychology of language	<i>The Pennsylvania State University</i>
INSTRUCTOR	<i>Jan 2024 - May 2024</i>
<ul style="list-style-type: none">Seminar course for upper-level psychology and linguistics undergraduates on psycholinguistics, with a focus on language development, bilingualism and second language acquisition, and linguistic diversityPresented bi-weekly lectures to highlight key concepts and clarify models and methods; mentored students on interpreting empirical research through reflection papers, journal article presentations and discussions, and individual meetings; fostered student curiosity and creativity through final project proposal and poster presentation	
Psychology of language	<i>The Pennsylvania State University</i>
TEACHING ASSISTANT	<i>Jan 2021 - May 2021</i>
<ul style="list-style-type: none">Instructor: Dr. Katharine Donnelly AdamsSeminar course covering auditory speech perception, visual word recognition, language representation, sentence comprehension and production, and language acquisition across the lifespanPresented guest lecture on linguistic variation and the relation between production and comprehension	
Basic research methods in psychology	<i>The Pennsylvania State University</i>
TEACHING ASSISTANT	<i>Aug 2020 - Dec 2020</i>
<ul style="list-style-type: none">Instructor: Dr. Nicholas PearsonIntroduction to experimental design, analysis, and presentationLed weekly laboratory section to reinforce lecture concepts	
What makes us human?	<i>The Pennsylvania State University</i>
TEACHING ASSISTANT	<i>Jan 2020 - May 2020</i>
<ul style="list-style-type: none">Instructor: Dr. Daniel WeissSenior seminar in comparative psychology	
Neurological bases of human behavior	<i>The Pennsylvania State University</i>
TEACHING ASSISTANT	<i>Aug 2019 - Dec 2019</i>
<ul style="list-style-type: none">Instructor: Dr. Stephen WilsonIntroduction to neuroscience theories and methodsPresented guest lecture on auditory system and neuroanatomy of language production and comprehension	

Academic service

- Mentor for the Mentoring Aspiring Graduate students and building an Inclusive Community program
- 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) for 20 students, Creating HTML Reports with R Markdown (2020) for 10 students
 - Assistant: R Bootcamp led by Dr. Rick Gilmore for 50+ students
- 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